

33.7
7 ar
1996

Montana, Dept. of
Natural Resources
and Conservation
Annual report
for fiscal year

State of Montana

Department of Natural Resources and Conservation

STATE DOCUMENTS COLLECTION

NOV 19 1997

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

Annual Report

for
Fiscal Year 1996

July 1, 1995, to June 30, 1996

MONTANA DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

MISSION STATEMENT

To help ensure Montana's land and water resources
provide benefits for present and future generations.

GUIDING PRINCIPLES

1. We obey the law.
2. We tell the truth.
3. We follow through on commitments and are accountable
for our actions.
4. We believe in being fiscally responsible for the taxpayer's
money.
5. We invite the public to participate in our actions and
decisions.
6. We provide prompt and courteous service to all our
customers.
7. We value and trust one another and strive for a healthy and
productive work environment.

MONTANA DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

**ANNUAL REPORT
FOR
FISCAL YEAR 1996**

JULY 1, 1995, TO JUNE 30, 1996

1625 Eleventh Avenue
P.O. Box 201601
Helena MT 59620-1601

Phone 406 444-2074

Fax 406 444-2684

TABLE OF CONTENTS

Letter from the Director

Introduction	1
Duties and Responsibilities	3
Department Organization	3
Financial Information	7
Programs	9
Centralized Services Division	11
Conservation and Resource Development Division	13
Conservation Districts Bureau	
Resource Development Bureau	
Forestry Division	27
Fire and Aviation Management	
Service Forestry Program	
Oil and Gas Conservation	35
Underground Injection Control Program	
Activity Review	
Reserved Water Rights Compact Commission	41
Federal Reserved Water Rights	
Completed Compacts	
Current Negotiations	
Preliminary Discussions	
Other Reserved Rights	
Trust Land Management Division	47
Overview	
Agriculture and Grazing Management	
Forest Management	
Minerals Management	
Special Use Management	
Water Resources Division	61
State Water Projects	
Water Management	
Water Operations	
Water Rights	
Regional Offices	
Appendix A. Funding Information	77
Allocation of RIT Proceeds and Interest	79
Coal Severance Tax Trust	83

Figures

1. DNRC Organizational Chart	4
2. Location of DNRC Offices	6
3. Montana's Conservation Districts	14
4. Resource Conservation and Development Areas in Montana	18
5. Allocation of Funds for Approved Reclamation and Development Grant Projects in FY 1996 and FY 1997	20
6. Allocation of Funds for Approved Renewable Resource Development Grants in FY 1996 and FY 1997	21
7. Number of Fires on State-Protected Lands	29
8. Acres Burned on State-Protected Lands	29
9. Seedlings Sold	31
10. Hazard Reduction Agreements	33
11. Oil Production by Region in 1995	36
12. Crude Oil Production in Montana (1943 - 1995)	37
13. Wells Completed in 1995 by Region	38
14. Location of Federal Reserves in Montana	41
15. Current Land Ownership	47
16. Permanent Fund Balance	48
17. Distribution of Revenues for the Common School Trust	50
18. Agricultural Rentals	51
19. Grazing Rentals	51
20. Timber Volume Prepared for Sale	53
21. Timber Revenue Received	53
22. Total Mineral Revenue	54
23. Oil and Gas Revenue (excluding Seismic Exploration)	55
24. Coal Royalties	55
25. Special Use Revenue	57
26. Special Use Revenue by Source	57
27. Montana General Adjudication Status during FY 1996	72

Tables

1. DNRC Expenditures and Funding in Fiscal Year 1996	7
2. Conservation District Project Grants Awarded in FY 1996	17
3. Public Loans	23
4. State Wastewater Revolving Fund Loans	24
5. Fire Protection by DNRC	28
6. Development Projects in FY 1996	30
7. Aviation Program Accomplishments in FY 1996	30
8. Nursery Sales in FY 1996	31
9. Forest Pest Management Activities in FY 1996	32
10. Forest Practices Activities in FY 1996	33
11. Major Categories of Community Forestry Activities in FY 1996	34
12. Five-Year Summary of Oil Production in Montana	37
13. Summary of 1995 Oil and Gas Activities	38
14. Summary of 1995 Well Drilling by County	39
15. Five-Year Summary of Wells Drilled	39
16. Compacts Concluded by the Reserved Water Rights Compact Commission	42
17. Nondistributable Receipts	48
18. Total Distributable Receipts	49
19. FY 1996 Trust Revenue	49
20. Forest Improvement Activities in FY 1996	53
21. Revenues Received from Minerals in Fiscal Year 1996	54
22. Special Use Revenues in Fiscal Year 1996	57
23. State-Owned Storage Dams Managed by the State Water Projects Bureau	62
24. Leases Associated with DNRC-Owned Water Projects	61
25. Broadwater-Missouri Power Project in FY 1996	65

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION



MARC RACICOT, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684

PO BOX 201601
HELENA, MONTANA 59620-1601

Dear Reader:

This report, covering Fiscal Year 1996 (which ended on June 30, 1996), is the first Annual Report of the newly reorganized Department of Natural Resources and Conservation (DNRC). The new DNRC was established through legislative reorganization of Montana's natural resource agencies. On June 30, 1995, the old Department of Natural Resources and Conservation, the former Board of Natural Resources and Conservation, and the former Department of State Lands vanished; beginning July 1, 1995, a new Department of Natural Resources and Conservation arose with 484 employees.

The new DNRC has seven divisions — four from the old DNRC, two from the former Department of State Lands, and one, Centralized Services, that is composed of staff from both former agencies. Eight boards and commissions are attached — some make decisions; some only give advice. In addition, about 40 field offices span the state. The new agency includes most of the functions of its predecessors, except those of the State Lands Reclamation Division and the DNRC Energy Division (both of which went to the new Department of Environmental Quality).

Reorganization began in earnest after the start of the fiscal year. Governor Marc Racicot appointed a 15-member council to assist the reorganization of the natural resource agencies. The DNRC/DEQ Reorganization Public Oversight Committee included legislators and representatives of various industries, environmental groups, agricultural interests, and local government. The group met monthly and ensured that the reorganization was responsive to the expectations of the public.

Reorganization also required relocation of the reorganized state agencies, which affected Helena-based employees of the old DNRC and former State Lands who were stationed in the Metcalf and USF&G Buildings. The Director's Office, Centralized Services Division, Reserved Water Rights Compact Commission, and Helena employees of the Trust Land Management Division, Conservation and Resource Development Division, and Oil and Gas Conservation Division consolidated in the USF&G Building at 1625 Eleventh Avenue in Helena. Helena employees of the Water Resources Division relocated to downtown Helena sites at 48 North Last Chance Gulch and 21 North Last Chance Gulch.

Field offices were also affected by reorganization. The two former agencies maintained separate offices in several communities. Efforts are ongoing to co-locate those office staffs to a single location in each community. DNRC has already co-located its office staffs in Bozeman, Glasgow, Lewistown, and Havre.

A lot more than just reorganization occurred in Fiscal Year 1996. Much of the activity is detailed in this report. I hope you will find it informative and of value.

Sincerely,

A handwritten signature in dark ink, appearing to read "Arthur R. Clinch".

Arthur R. Clinch
Director

INTRODUCTION

INTRODUCTION

The new Department of Natural Resources and Conservation (DNRC) was established on July 1, 1995, as a result of SB 234, which reorganized three natural resource and environmental agencies and shifted certain natural resource management functions. The department retained the Water Resources Division, Conservation and Resource Development Division, Reserved Water Rights Compact Commission, and Oil and Gas Conservation Division. It received the Forestry and Trust Land Management Divisions from the former Department of State Lands. It also consolidated service staff from both agencies into the Centralized Services Division.

Duties and Responsibilities

The duties and responsibilities of the Department of Natural Resources and Conservation were significantly revised as the result of this reorganization.

The department is responsible for sustaining and improving the benefits derived from our water, soil, and rangeland; managing the State of Montana's trust land resources to produce revenues for the trust beneficiaries; protecting Montana's natural resources from wildland fires through regulation and partnerships with federal, state, and local agencies; promoting the conservation of oil and gas and preventing resource waste through regulation of exploration and production; and managing and assisting in the management of several grant and loan programs, including the renewable resource, reclamation and development, treasure state endowment, and wastewater revolving fund programs. The department is also responsible for promoting the stewardship of Montana's water, soil, forest, and rangeland resources and for regulating forest practices.

Department Organization

The director of the Department of Natural Resources and Conservation is Arthur R. "Bud" Clinch.

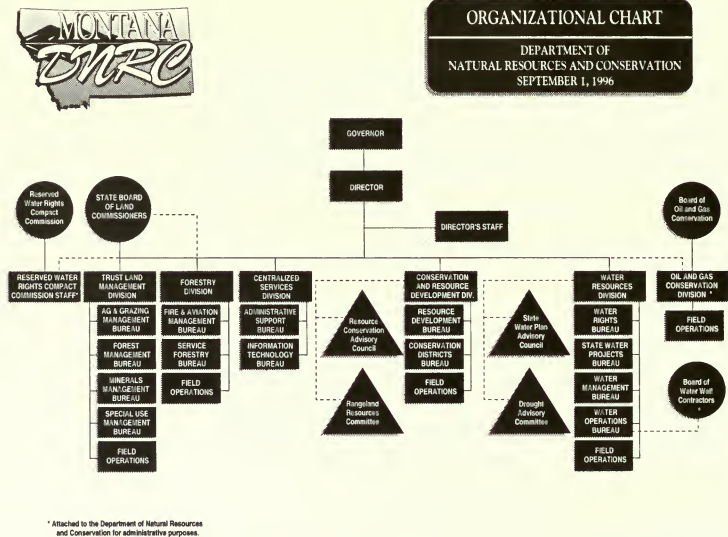
As shown in Figure 1, eight boards and commissions are attached to the department. Four of them — the State Board of Land Commissioners, Reserved Water Rights Compact Commission, Board of Oil and Gas Conservation, and Board of Water Well Contractors — have decision-making authority. The other four — the Resource Conservation Advisory Council, Rangeland Resources Committee, State Water Plan Advisory Council, and Drought Advisory Committee — act in an advisory capacity only.

The department has been organized into seven divisions:

- Centralized Services Division
- Conservation and Resource Development Division
- Forestry Division
- Oil and Gas Conservation Division
- Reserved Water Rights Compact Commission
- Trust Land Management Division
- Water Resources Division

Two of the divisions — the Oil and Gas Conservation Division and the Reserved Water Rights Compact Commission — are attached to the department for administrative purposes only.

Figure 1



Centralized Services

The Centralized Services Division provides administrative and operational support to all divisions. Support services include fiscal affairs, data processing, personnel, legal, reception, and mail. The division coordinates information services and prepares publications and graphic materials for printing. Trust revenues are collected and distributed; oil, gas, and coal royalty audits are conducted; and ownership records for trust and nontrust lands are maintained.

Conservation and Resource Development

The Conservation and Resource Development Division coordinates, supervises, and provides financial and technical assistance to Montana's 58 conservation districts and provides technical, financial, and administrative assistance to public and private entities to complete projects that put renewable resources to work, increase the efficiency

with which natural resources are used, or solve recognized environmental problems. The division receives advice and guidance from two attached bodies: the Resource Conservation Advisory Council and the Rangeland Resources Committee.

Forestry

The Forestry Division protects the state's forested and nonforested watershed lands from wildfire; provides aviation services; operates a nursery and provides shelterbelt, windbreak, wildlife habitat improvement, reclamation, and reforestation plantings on state and private lands; and regulates forest practices and wildfire hazards created by logging or other forest management operations on private lands.

Oil and Gas Conservation

The Board of Oil and Gas Conservation and its technical support staff are attached to the department for administrative purposes. The quasi-judicial board is comprised of seven members consisting of industry representatives, landowners, and an attorney. They administer Montana's oil and gas laws to promote conservation and prevent waste in the recovery of these resources through regulation of oil and gas exploration and production. The board and its staff issue drilling permits; classify wells; establish well spacing units and land pooling orders; inspect drilling, production, and seismic operations; investigate complaints; conduct engineering studies; and collect and maintain complete well data and production information.

Reserved Water Rights Compact Commission

The Reserved Water Rights Compact Commission, which is also administratively attached to the department, was created by the legislature in 1979 as part of the water rights adjudication effort. Commissioners are appointed by the governor, the attorney general, the speaker of the House of Representatives, and the president of the Senate. The seven-member commission and its support staff negotiate water rights with Indian Tribes and federal agencies to establish a formal agreement on the amount of water to be allocated to each interest.

Trust Land Management

The Trust Land Management Division is responsible for managing the surface and mineral resources of forested, grazing, agricultural, and other classified state trust lands to produce revenue for the benefit of Montana's public schools and other endowed institutions. The State Board of Land Commissioners oversees the administration of the state trust land in Montana, as directed by the Montana Constitution. This board consists of Montana's top elected officials: the governor, superintendent of public instruction, secretary of state, attorney general, and state auditor.

Water Resources

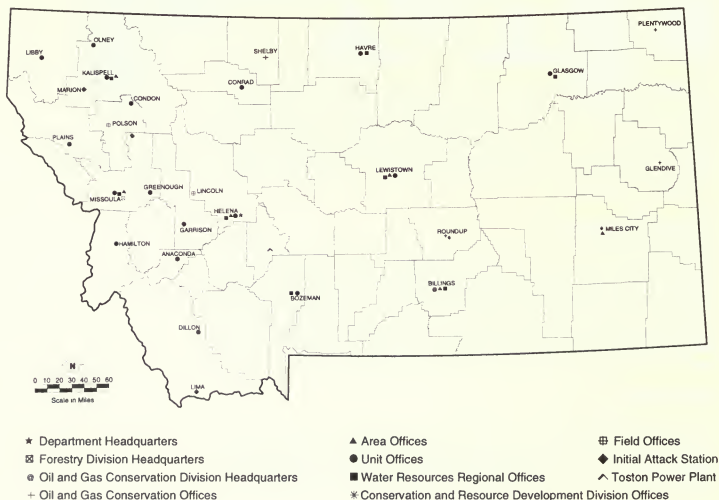
The Water Resources Division is responsible for many programs associated with the uses, development, and protection of Montana's water. The division also develops and recommends water policy to the director, governor, and legislature. The division consists of an administration unit and four bureaus: water management, water rights, state

water projects, and water operations. Attached to the Water Operations Bureau is the six-member Board of Water Well Contractors, a quasi-judicial board that can issue, suspend, or revoke licenses; promulgate rules and regulations; investigate complaints; and hold disciplinary hearings. Two advisory groups — the 15-member State Water Plan Advisory Council and the 18-member Drought Advisory Committee — are also attached to the Water Resources Division.

Field Offices

Field operations for the department's programs are performed through 40 area, regional, unit, and field offices located throughout the state. Sixteen of these are from the old DNRC (the Water Resources, Oil and Gas Conservation, and Conservation and Resource Development Divisions), and another 24 are from the former Department of State Lands (the Forestry and Trust Land Management Divisions). Locations of DNRC offices are shown in Figure 2.

Figure 2
Location of Department of Natural Resources and Conservation Offices



Financial Information

Table 1 presents overall expenditures and funding of the Department of Natural Resources and Conservation for Fiscal Year (FY) 1996. Information on two of the department's funding sources, the Resource Indemnity Tax and the Coal Severance Tax, can be found in Appendix A.

Table 1
Department of Natural Resources and Conservation
Expenditures and Funding
in Fiscal Year 1996

	Budgeted	Nonbudgeted	Total
EXPENDITURES			
Personal Services	\$16,603,345		\$16,603,345
Operating Expenses	10,472,947	\$3,281	10,476,228
Equipment	1,187,594		1,187,594
Capital Outlay	12,050		12,050
Local Assistance	125,000		125,000
Grants	1,551,350		1,551,350
Transfers	337,500	16,415,273	16,752,773
Debt Service	565,331	20,781,783	21,347,114
TOTAL	<u><u>\$30,855,117</u></u>	<u><u>\$37,200,337</u></u>	<u><u>\$68,055,454</u></u>
FUNDING			
General Fund	\$14,615,156		\$14,615,156
State Special Revenue Fund	12,946,081	\$14,260,627	27,206,708
Federal Special Revenue Fund	2,778,264		2,778,264
Debt Service Fund		22,939,710	22,939,710
Capital Projects Fund	45,743		45,743
Proprietary Fund	469,873		469,873
TOTAL	<u><u>\$30,855,117</u></u>	<u><u>\$37,200,337</u></u>	<u><u>\$68,055,454</u></u>

PROGRAMS

CENTRALIZED SERVICES DIVISION

Provides managerial, administrative support, information, computer, legal, and personnel services to all divisions of the department.

The Centralized Services Division (CSD) provides managerial and legal services to the department through the Director's Office. The division also manages all financial activities, oversees personnel policies and functions, coordinates computer systems, performs public information and media relations tasks, produces publications and graphic materials, and provides general administrative support services. Support services include payroll, data entry, reception, and mail. Responsibilities include trust revenue collection and distribution and maintenance of ownership records for trust and non-trust state-owned land.

With the reorganization of Montana's executive branch, which became effective July 1, 1995, most of the former Department of State Lands (with the exception of the Reclamation Division) was combined with most of the old Department of Natural Resources and Conservation (with the exception of the Energy Division) to form the new Department of Natural Resources and Conservation. This restructuring brought with it massive relocations of employees, reconfiguring of work spaces, remodeling and rewiring of buildings, rewriting of policies, etc. CSD was instrumental in arranging for and/or performing many of the tasks required by reorganization.

For instance, more than 60 employees from CSD, the Oil and Gas Conservation Division, the Conservation and Resource Development Division, and the Reserved Water Rights Compact Commission moved in stages from the Metcalf Building into the USF&G Building, while about 70 employees from the Water Resources Division moved into two downtown Helena locations. All three buildings in Helena required some remodeling. Field offices in Glasgow, Bozeman, Lewistown, and Havre also co-located in Fiscal Year 1996.

The two agencies had two different, incompatible, multi-user computer systems. The CSD Information Technology Bureau was able to make the systems co-exist in the new agency, and users have been able to continue to perform their tasks. Efforts began to discontinue the VAX system and move all Helena-based employees onto the Novell system.

Each of the two former natural resource agencies had its own set of personnel policies, as well, and not all of the policies were identical. Several policies were rewritten or developed in Fiscal Year 1996 to bring the two agencies together as one department. These included policies on:

- Compensatory time
- Overtime
- Sick leave
- Drug testing
- Recruitment and selection
- Probation
- Discipline handling

To satisfy House Bill 2 (the state government appropriations bill), 5.00 full-time positions were eliminated. As anticipated throughout the reorganization, all of these positions came from CSD. The six employees affected were given an early retirement option.

CONSERVATION AND RESOURCE DEVELOPMENT DIVISION

Provide technical and financial assistance to local governments, state agencies, and private citizens for the conservation, development, protection, and management of the state's natural resources.

The Conservation and Resource Development Division helps manage natural resources and finances conservation, resource management, and reclamation activities. The division has 18.5 full-time employees who administer the work of the Conservation Districts Bureau and the Resource Development Bureau.

Conservation Districts Bureau

Under state law, the Conservation Districts Bureau (CDB) is responsible for assisting Montana's conservation districts and state grazing districts. A conservation district (CD) is a legal subdivision of state government that (1) develops and carries out long-range programs that will conserve and improve soil and water resources within its boundaries, and (2) encourages maximum participation by the general public and all local public and private agencies to fulfill this purpose.

State law also directs the department to supervise and coordinate the formation and operation of grazing districts. Grazing districts are cooperative, nonprofit groups that set up permitting systems to aid in the management of grazing lands where land ownership is intermingled in order to conserve, protect, restore, and properly utilize grass, forage, and range resources.

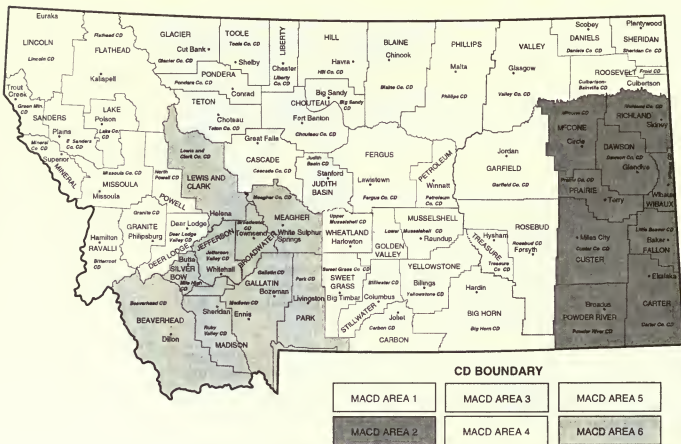
The CDB works with the people of Montana on these 10 areas of conservation and resource management.

- Conservation district supervision and assistance
- Rangeland management coordination
- Grazing district supervision and assistance
- Water programs
- Watershed efforts and projects
- Natural resource conservation education activities
- Riparian management
- Grant programs
- Resource conservation and development areas (RC&Ds)
- Salinity control

Conservation District Supervision and Assistance

The bureau provides administrative, legal, and financial assistance to Montana's 58 conservation districts (see Figure 3) to help them identify and address local natural resource concerns. Because of the natural resource challenges, and because the technological tools needed to address them have become more complex and challenging since the conservation districts were created in 1939, the bureau assisted conservation

Figure 3. Montana's Conservation Districts



districts in developing a statewide capacity-building program to revitalize conservation district efforts. This year's meeting concentrated on seven key areas: public education, supervisor orientation and leadership training, funding, communication, 310 law administration, enhanced partnership cooperation, and, lastly, program planning and delivery, with initial emphasis on watershed planning.

The Conservation Districts Bureau also works with the Montana Association of Conservation Districts (MACD) and the National Association of Conservation Districts (NACD) to address natural resource concerns.

Rangeland Management Coordination

The rangeland resource program has four major areas of emphasis. They include:

- Working with county range committees, conservation districts, and producer groups
- Co-sponsoring the Winter Grazing Seminar
- Co-sponsoring the Youth Range Camp
- Administering the rangeland improvement loan program

The rangeland resource program receives guidance from the Rangeland Resource Executive Committee and an advisory committee. The executive committee consists of six persons who are appointed by the governor for two-year terms and represent resource personnel in various capacities of state, federal, Indian, and private organizations. The advisory committee consists of seven members appointed by the governor; five of these are from CDs, and two are members at large.

CD staff work to strengthen local grazing management programs by helping sponsor workshops, tours, and demonstration projects. In February, the bureau co-sponsored the 11th Annual Winter Grazing Seminar in Forsyth.

In June, the Montana Youth Range Camp provided an opportunity for youngsters aged 14 to 18 to develop an appreciation and understanding of Montana's grazing resources. This year's camp hosted about 40 campers, many of whom were sponsored by conservation districts from throughout the state. DNRC assisted the Powder River Conservation District with the camp.

The low-interest rangeland improvement loan program was started in 1979 for the purpose of improving rangelands in Montana. To date, 173 applications have been received for loans totaling \$3,036,823. Currently, 96 loans totaling \$1,501,039 are in repayment status. Over 670,000 acres of Montana rangeland have been improved using funds from this program.

Grazing District Supervision and Assistance

State law provides for the creation of cooperative, nonprofit grazing districts and sets up a permitting system that aids in the management of grazing lands where ownership is intermingled. In its administration of the Montana Grass Conservation Act (grazing district law), the bureau advises, supervises, and coordinates the formation and operation of these grazing districts. Uniform plans that conform with recognized conservation practices are developed for the use of lands within the boundaries of the districts. The 30 state grazing districts represent 1,353 permittees and cover 10,501,070 acres of land.

In FY 1996, program staff coordinated a grant between a CD and a grazing district to do a groundwater assessment in Petroleum County to discover why the area's 455 artesian wells were drying up. Based on information provided by this study, a plan was devised to plug some of the wells, making the remaining wells more viable and controllable.

Water Programs

CDB provides administrative assistance, training, and legal opinions to conservation districts to help them administer SB 310, the Natural Streambed and Land Preservation Act. Under this law, any private entity proposing a project that will alter or modify the bed or banks of a stream must obtain a permit. The 1995 Montana Legislature amended the act to streamline the permit process and clarify the requirements. In FY 1996, the bureau provided assistance in the preparation of forms and state administrative rules to implement the changes to SB 310.

Watershed Efforts and Projects

Through the capacity-building program, conservation districts have identified the need for watershed planning as a high priority goal for the next five years. Conservation districts, as the local entity responsible for addressing nonpoint source (NPS) water pollution, will play a key role in developing local watershed plans. CDB participates on the Watershed Coordinating Council, a group of state and federal agencies and private organizations that coordinates programs in Montana that address aspects of watershed management.

Natural Resource Conservation Education Activities

This program provides grant funding and policy guidance for resource conservation education programs. The bureau assists conservation districts in sponsoring elementary and secondary school activities, the annual Natural Resources Youth Camp, and adult education. The goals are to promote discussion of resource issues and provide the knowledge and skills necessary to make decisions regarding the management, protection, and wise use of our natural resources. A \$500 mini-grant is available to educators statewide and enables teachers to develop environmental education projects around local resource issues. A total of 17 mini-grant projects were funded in FY 1996.

Riparian Management

Proper management of riparian areas is critical to maintaining water quality, streambank stability, and flood control. Since 1988, the bureau has coordinated a comprehensive riparian management program involving conservation districts, federal and state agencies, and private organizations. The purpose of the program is to promote proper riparian management by emphasizing the economic, ecological, and hydrologic benefits of these areas to landowners.

Program efforts for FY 1996 included:

- Holding workshops attended by 400 landowners
- Updating the *Montana Stream Management Guide*
- Developing a riparian and stream channel monitoring form for landowners
- Developing and distributing 150 copies of a video called *Riparian Ranching Successes in Montana*

Grants have been received and private funds raised to pay for some of these products.

Grant Programs

The bureau administers two grant programs (besides the resource education mini-grants).

Conservation Districts Project Grants

The conservation districts project grant program provides \$100,000 per year from coal severance tax funds for projects and activities that satisfy the natural resource manage-

ment mandates on CDs. Funds are used to correct streambank erosion and sedimentation problems; rehabilitate burned areas; and conduct water development projects, youth educational activities, and equipment rental programs. The projects for FY 1996 are listed in Table 2. In September, Lewis and Clark County Conservation District sponsored a very successful workshop on Elk Creek examining stream dynamics and fisheries enhancements.

Table 2
Conservation District Project Grants Awarded in FY 1996

Conservation District	Project	Amount
Carbon	Rock Creek Watercourse	\$1,740
Cascade County	Long-Term Funding Project	3,200
Chouteau County #1	Envirothon #1	5,000
Chouteau County #2	Envirothon #2	5,000
Chouteau County #3	Envirothon #3	5,000
Daniels County	Tree Spade Purchase	7,500
Dawson County	Fertility Benefits of Peas	3,500
Fergus County	Flowing Wells Inventory	2,750
Glacier County	Laser Level Survey Equipment Purchase	2,480
Granite	Soil Survey	3,000
Green Mountain #1	Know Your Watershed	1,000
Green Mountain #2	No-Till Drill Purchase	7,139
Hill County	Cost Estimate for Water Rights Compact	2,000
Jefferson Valley	Personnel Policies for CDs	3,000
Judith Basin	Windbreak Maintenance Equipment	535
Lewis and Clark County #1	Elk Creek Restoration Tour	500
Lewis and Clark County #2	Augusta High Greenhouse Project	2,500
Lincoln	Video Camera Purchase	1,000
Little Beaver	Computer Purchase	1,000
Park	Computer Purchase	1,000
Pondera County	Intensive Grazing Tour	461
Powder River #1	Pine-Thinning Study	4,500
Powder River #2	Youth Range Camp 1996	3,500
Prairie County	Groundwater Recharge Estimation	5,000
Roosevelt County	Dry Fire-Hydrant Demonstration	4,700
Ruby Valley	Watershed Coordinator for CDs	3,000
Sheridan County #1	Groundwater Recharge Study #1	7,830
Sheridan County #2	Groundwater Recharge Study #2	8,000
Valley County	Greenhouse Crop Experiment and Youth Library	1,750
Yellowstone	Watershed Science Project	<u>925</u>
TOTAL		<u>\$98,510</u>

Administrative Grants

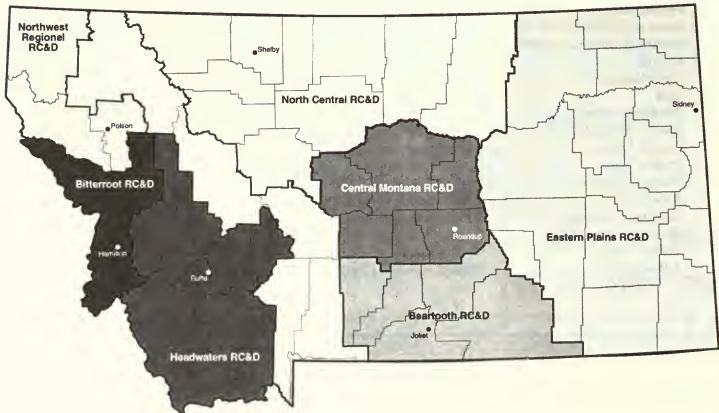
The bureau also receives \$125,000 per year from the resource indemnity tax (RIT) trust fund for grants to districts whose county mill levies are inadequate to support district operations. These grant funds must be used for administrative purposes. In FY 1996, grants were awarded to 35 CDs.

More information on the coal severance tax and the RIT is presented in Appendix A.

Resource Conservation and Development Areas

In a cooperative effort with the U.S. Natural Resource Conservation Service (formerly named the Soil Conservation Service), the bureau has taken a lead role in assisting in activities of the state Resource Conservation and Development (RC&D) coordinator and the Central Montana RC&D Area. The state RC&D coordinator is currently helping develop key issues and providing direct assistance to the RC&Ds in Montana (see Figure 4). The Central Montana RC&D has recently received preliminary approval for a \$244,135 grant to the High Plains Education Consortium, a group of educators. This group is developing a networked interactive television program to link schools and communities to allow for sharing of instructors, university-level courses, and special programs, including conservation-related events.

Figure 4. Resource Conservation and Development Areas in Montana



Salinity Control

The Montana Salinity Control Association (MSCA), which is a group of conservation districts, was established to assist with salinity control and water quality problems caused by agriculture. MSCA originated in 1979 in 9 counties and now serves 34. MSCA is funded with mineral taxes through DNRC; in FY 1996, MSCA received \$200,000. CDB works with MSCA on salinity control.

Conservative estimates indicate that 300,000 acres in Montana are affected by salinity, although recent cropping system changes have had a positive effect. Working on both an individual and watershed basis, MSCA has developed reclamation plans for 94,450 acres involving 650 producers. Many (11,950) of these saline-affected acres have been taken out of crop production. Several watershed salinity projects totaling over 50,000 acres are completed or are in progress. Each watershed project has a local landowner advisory group that also contributes funds.

Resource Development Bureau

The Resource Development Bureau (RDB) administers several grant and loan programs and provides assistance to conservation districts for the administration of water reservations. The programs include:

- Reclamation and Development Grants Program
- Renewable Resource Grant and Loan Program
 - Public Grants
 - Emergency Grants
 - Private Grants
 - Private Loans
 - Public Loans
- State Wastewater Revolving Fund
- Safe Drinking Water Revolving Fund
- Conservation Districts Water Reservations

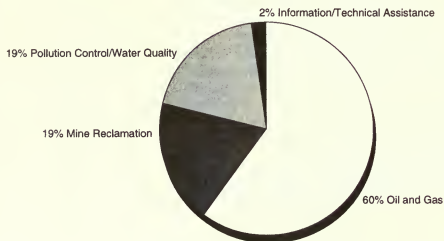
FY 1996 was a successful year for these programs. Over 240 contracts were being actively administered, and approximately \$8.5 million in grant and loan funds was disbursed for projects throughout the state.

Reclamation and Development Grants Program

The reclamation and development grants program (RDGP) is a state-funded grant program designed to fund projects that "indemnify the people of the state for the effects of mineral development on public resources and that meet other crucial state needs serving the public interest and the total environment of the citizens of Montana" (MCA 90-2-1102). The program was established in 1987. Grants of up to \$300,000 are available per application. Any department, agency, board, commission,

or other division of state government or any city, town, county, or other political subdivision or tribal government within the state may apply for a RDGP grant.

**Figure 5. Allocation of Funds for
Approved Reclamation and Development Grant Projects
In FY 1996 and FY 1997**



The funding sources for this program are (1) interest income from the resource indemnity tax (RIT) trust fund, and (2) taxes levied on mineral production; a minimum of \$3 million is allocated for RDGP grants each biennium. In FY 1996, the bureau administered 34 RDGP contracts, and \$1,475,474 was disbursed in RDGP grant funds. The allocation of funds in FY 1996 and FY 1997 is illustrated in Figure 5.

The Vosburg Mine is one example of a grant project completed in FY 1996. The Vosburg Mine is located in the Badger Creek drainage southwest of Winston, Montana. High levels of arsenic emanating from this site resulted in the death of 22 cattle during the summer of

1995. Because the cleanup costs (over \$1.2 million) for this site exceeded the financial resources of any one agency, it was necessary to form a multi-agency partnership to fund and administer project reclamation. The U.S. Forest Service, Department of Environmental Quality, City of Townsend, and DNRC were all instrumental in realizing project completion during the fall of 1995. DNRC's contribution was in the form of a RDGP grant (\$300,000) to the City of Townsend. The project exemplifies federal, state, and local commitment and participation and has received numerous awards recognizing the efforts of project participants.

FY 1996 was also a grant-submission-and-review year. Thirty-one grant applications were received. These applications were reviewed by the bureau and ranked. Funding recommendations to the legislature will be made in a report that will be published in January 1997.

Renewable Resource Grant and Loan Program

The Montana Legislature established what is now the Renewable Resource Grant and Loan Program in 1975 to promote the development of our renewable natural resources. Funding from mineral taxes and RIT interest is available to purchase, lease, plan, design, construct, or rehabilitate projects that conserve, manage, use, develop, or preserve land, water, fish, wildlife, recreation, and other renewable natural resources.

Various grants are available for both public and private entities. A minimum of \$2 million is allocated for public and private grants each biennium. Up to \$100,000 is available per grant application. The allocation of funds in FY 1996 and FY 1997 for approved grant projects is illustrated in Figure 6.

General obligation bonds and coal severance tax bonds are issued to fund the loan programs.

Public Grants

In FY 1996, a total of 54 ongoing renewable resource public entity grant contracts were administered by the bureau, and \$698,756 was disbursed in renewable resource public grant funds. FY 1996 was also a grant submission- and - review year. Fifty-one eligible grant applications were received. These applications were reviewed by the bureau and ranked. Funding recommendations to the legislature will be made in a report that will be published in January 1997.

In FY 1996, the renewable resource grant and loan program entered into 21 new grant agreements totaling \$1,477,570. As an example of a project that conserves resources, a \$100,000 grant to the City of Lewistown was used to kick off the \$8.6 million rehabilitation of the city's water supply system. This project will eliminate water losses estimated at 2.1 million gallons per day (nearly half of the city's water supply).

Emergency Grants

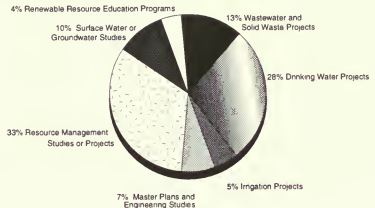
In addition to the grants authorized by the legislature, the department has authority to provide \$125,000 in emergency grants to governmental entities if delaying the project until legislative approval can be made would cause loss of property or create legal liability.

In FY 1996, DNRC made one emergency grant. On July 10, 1995, heavy rain and winds combined to cause a major breach in an earthen dam impounding 100 acre-feet of treated wastewater being stored for future land application. Because the embankment is an essential component of Eureka's wastewater treatment facility, immediate repairs were critical to prevent the flow of treated wastewater across private land and directly into the Tobacco River and Lake Koocanusa. A contractor was retained, and work began within a week to make the necessary repairs. The total project costs were \$132,856; part of this cost (\$33,214) was funded by DNRC's emergency grant program.

Private Grants

Financial assistance is available to any individual, association, partnership, or corporation (both for-profit and nonprofit). The legislature allocated \$100,000 for private grants per biennium. By law, grant funding for a single project may not exceed 25

Figure 6. Allocation of Funds for Approved Renewable Resource Development Grants in FY 1996 and FY 1997



percent of the total estimated cost. The department has divided these funds into two target areas.

The first \$50,000 is targeted toward privately owned public water systems. Owners of small systems have difficulty in meeting regulations. The department has identified 23 private water systems for potential funding. The average size of a grant is just over \$2,000; the grant must be matched on a 3-to-1 basis. DNRC awarded twenty-two grants totaling \$55,161 in FY 1996.

The second target group is private dam owners. The department solicited and reviewed applications during FY 1996, and nine grants totaling \$20,447 were awarded.

Private Loans

Loans for private water development projects are available from the department. Loans to private entities may not exceed the lesser of \$200,000 or 80 percent of the fair market value of the security given for the project. Private loans must be secured with real property. Irrigation system improvements — for example, the conversion from flood irrigation to sprinkler irrigation — are the most common type of projects funded through private loans. To finance loans, the law provided authority to issue general obligation renewable resource bonds totaling \$10 million; approximately \$8.8 million in general obligation bonds have been issued to date. In FY 1996, ninety-six loans were administered, and DNRC closed new loans totaling \$1,437,406.

Public Loans

This program makes loans to communities for renewable resource projects. The program was started in 1981 by the Montana Legislature, which granted a total of \$250 million in coal tax bonding authority. In FY 1996, 64 public loans with a balance of approximately \$55 million were outstanding, and 2 new loans were closed for \$1.3 million. The legislature has approved \$30 million in loans for which funds have not yet been drawn. DNRC is projecting that approximately \$5 million in loans will close before the end of the 1997 biennium.

Examples of the types of projects completed and financed by the program are water and sewer systems. DNRC has also loaned funds to rehabilitate dams and finance irrigation projects around the state. Current public loans are listed in Table 3. Some entities have received more than one loan.

Table 3
Public Loans

APPLICANT	BALANCE DUE	APPLICANT	BALANCE DUE
Anaconda-Deer Lodge County	\$363,503	Lakeside Sewer District #1	\$64,583
Beaverhead County/Red Rock Water and Sewer	2,315,088	Lakeside Sewer District #2	595,858
Belgrade	535,691	Libby	383,425
Bitterroot Irrigation District	895,665	Lima	193,469
Bozeman #1	309,441	Lockwood Irrigation District	188,742
Bozeman #2	582,768	Miles City	1,338,366
Broadwater Power Project #1	21,735,000	Mill Creek Water and Sewer District	780,108
Broadwater Power Project #2	3,800,000	Neihart	150,000
Charlo Water District	22,696	Petrolia Water Users Association	358,000
Columbia Falls	1,052,346	Pondera County Canal and Reservoir #1	468,943
Conrad	154,318	Pondera County Canal and Reservoir #2	348,573
Culbertson	402,743	Poplar	319,585
Denton	146,250	Sage Creek Water District	606,017
Dutton #1	123,351	Sanders Water District at Noxon	126,194
Dutton #2	23,774	Shelby	366,434
East Bench Irrigation District	602,287	Shields Canal Water Users Association	22,293
East Helena	349,767	Sun Prairie Sewer District	501,303
Ekalaka	143,643	Sun Prairie Water and Sewer District	182,701
Ennis #1	111,416	Three Forks #1	187,859
Ennis #2	737,448	Three Forks #2	119,404
Fairview	232,606	Upper Musselshell Water Users Association	135,390
Flathead County for Evergreen	3,529,703	West Yellowstone #1	377,869
Forsyth #1	362,297	West Yellowstone #2	595,125
Forsyth #2	312,807	White Sulphur Springs	305,594
Fort Benton	525,674	Whitefish	447,280
Gardiner-Park County Water District	298,634	Whitehall	54,061
Glasgow	2,427,180	Wibaux	214,988
Glendive	1,516,133	Yellowwater Water Users Association	21,775
Harlem	311,960	Yellowstone County #1	208,686
Havre	1,811,229	Yellowstone County #2	273,961
		TOTAL	\$55,672,004

The treasure state endowment program is coordinated by the Montana Department of Commerce. If a project is reviewed and a loan recommended, the loan is made through the public loan program at DNRC. Five loans will be recommended to the 1997 legislature.

State Wastewater Revolving Fund Loans

The State Wastewater Revolving Fund (SRF) was created by the 1989 legislature. It is designed to combine federal grant money with state matching money to create a low-interest loan program that funds community wastewater treatment projects. DNRC and the Department of Environmental Quality co-administer the SRF program. The

U.S. Environmental Protection Agency (EPA) makes a grant of federal funds to the state. The state must match 20 percent of that grant. The state's share is derived from the sale of state general obligation bonds. Loans are made by DNRC to public entities at an interest rate of 4 percent for 20 years. Since the program started, the State of Montana has issued \$5.6 million in general obligation bonds, and EPA has contributed \$27.5 million in grants. This accounts for the \$33-million program level. Five loans were closed in the 1996 construction season. The \$5 million Big Sky loan allowed a construction moratorium to be lifted in that community. See Table 4 for a listing of current loans and proposed loans.

Table 4 State Wastewater Revolving Fund Loans	
LOANS COMPLETED	AMOUNT OF LOAN
Butte-Silver Bow	\$5,361,000
Cut Bank #1	531,000
Cut Bank #2	800,000
Darby	111,000
Flathead County	
Big Fork	424,000
Evergreen #1	3,600,000
Evergreen #2	700,000
Fort Benton	1,177,000
Glasgow	479,000
Glendive #1	236,000
Glendive #2	414,000
Kalispell	3,913,000
Missoula	
Wapikiya/Bellevue Clarifier #1	2,465,000
Wapikiya/Bellevue Clarifier #2	1,177,000
Wapikiya/Bellevue Add-On	324,000
NW Broadway	943,000
Rattlesnake	304,000
California Street	502,000
Reserve Street	2,221,000
Missoula County	
Linda Vista #1	241,000
Linda Vista #2	1,943,000
Park County #1	378,000
Park County #2	83,000
Red Lodge	443,000
Ronan	623,000
Shelby	481,000
Wolf Point	453,000
TOTAL	<u>\$30,327,000</u>
PROPOSED LOANS	
Big Sky	\$5,000,00
St. Marie	150,000
Victor	300,000
TOTAL	<u>\$5,450,000</u>

Safe Drinking Water Revolving Fund Loans

This fund provides for the issuance of low-interest loans to local governmental entities to finance drinking water facilities. The state passed enabling legislation in its 1995 session, and the U.S. Congress passed the federal enabling legislation in August 1996. The state must wait for the federal guidelines to be issued before it can adopt administrative rules. The program is expected to be available to Montana communities in 1997. Drinking water loans are anticipated to total \$5 million to \$10 million during the first year of the program. DNRC and DEQ will co-administer the safe drinking water program.

Conservation District Water Reservations

In 1978, the Board of Natural Resources and Conservation granted water reservations to 14 conservation districts (CDs) in the Yellowstone River basin. In 1992, 9 CDs were granted reservations in the upper Missouri River basin, and 11 CDs were given reservations in the lower and little Missouri River basins in 1994. Some CDs have reservations in more than one basin. The Resource Development Bureau provides legal, technical, and programmatic assistance to conservation districts in administering water reservations.

FY 1996 was an important year for the districts in the Missouri River basin. The bureau and districts developed an administrative manual to guide the districts in approving and administering water reservation irrigation projects. This manual is titled *Reserved Water Use General Development Plans*. The bureau held informational meetings with 15 of the districts to review the manual in FY 1996.

The CDs in the Yellowstone River basin continued to review and approve project applications in FY 1996. A total of 14 project applications in the Yellowstone basin were processed with DNRC's assistance.

FORESTRY DIVISION

Protecting Montana's natural resources from wildland fires through regulation and partnerships with federal, state, and local agencies, and helping Montanans achieve land stewardship and compliance with state forestry laws.

The Forestry Division, headquartered in Missoula, is responsible for planning and implementing forestry programs through a network of field offices located across the state. The forestry program has two major functions: fire and aviation management, and service forestry. Each function is further broken down into programs and subprograms, most with statewide application. The Forestry Division has the following goals and objectives:

- Protecting the state's natural resources from wildfire, insect pests, and disease
- Sustaining or improving the natural resources of private forest land for the good of all Montanans
- Promoting and supporting conservation practices on all lands in Montana
- Enforcing the state's forest practices laws in a manner that is both fair and consistent to all parties, and that complies with the intent of the legislation
- Encouraging the maintenance, planting, and management of trees and shrubs in Montana communities

Fire and Aviation Management

DNRC's Fire and Aviation Management Bureau is a team of trained professionals providing wildland fire service leadership to Montana, commissioned by Montana citizens to protect the natural resources of the state by preventing and suppressing wildland fires, and accountable to Montana citizens. The bureau protects natural resources on state and private lands through aggressive fire prevention and protection activities. A total of 50,327,071 acres of state-owned and private lands are protected as detailed in state resource management plans, or as required by state law. DNRC protects a total of 5,126,493 acres consisting of 3,481,506 acres of state and private lands; 694,665 acres of U. S. Bureau of Land Management (BLM) lands; and 950,322 acres of U. S. Forest Service (USFS) lands. A total of 1,753,106 acres of state and private lands are subcontracted to federal agencies. In addition, the State/County Cooperative Fire Protection network protects 45,092,459 acres. Protection is shown in Table 5.

Table 5
Fire Protection by DNRC

Total Acres	Category	State and Private Lands (Acres)	Public Lands (Acres)
5,126,493	DNRC Direct Protection State and Private Lands BLM Lands USFS Lands	3,481,506	694,665 950,322
1,753,106	Federal Direct Protection ¹ Protected by BIA (Tribal) Protected by BLM Protected by USFS	152,933 85,810 1,514,363	
45,092,459	State/County Cooperative Fire Protection ²	45,092,459	
51,972,058	TOTALS	50,327,071	1,644,987

1. Subcontracted to federal agencies

2. Includes 53 counties

Approximately 254,416 acres of private land in Montana are unprotected. These lands lie in Granite, Mineral, and Missoula Counties.

Fire Prevention

The fire prevention program's purpose is to reduce the number and severity of wildfires occurring each year. The program is made up of three parts:

- Engineering through prescribed fire and application of DNRC's wildland/residential interface development guidelines
- Education
- Compliance measures applied to avert wildfire damage on lands protected by DNRC and cooperating counties

Wildland/residential interface areas are emphasized, and information is provided to local officials so that they can make informed decisions regarding local planning and development issues.

In FY 1996, DNRC completed its fire risk rating on 95 percent of the direct protection areas that are high risk. Several hundred plats of proposed developments are being evaluated, and recommendations are being submitted to county commissions regarding conditions for fire-safe developments. The Fire Protection Guidelines for Wildland/Residential Interface Development have been adopted in several more counties, and the guidelines are being applied to existing and proposed developments for the

first time. New forest fire rules and regulations were approved by the State Land Board, have been published, and have gone into effect.

Fire Suppression

Through the fire suppression program, DNRC directly protects 5,126,493 acres of state, private, and federal lands; assists 53 cooperating counties with fires exceeding their capabilities on 45,092,459 acres of state and private lands; and subcontracts fire protection on 1,753,106 acres of state and private lands to the U.S. Forest Service, U.S. Bureau of Land Management, and U.S. Bureau of Indian Affairs (Tribal). DNRC also provides support and assistance to federal fire agencies and other states when appropriate.

The number of fires that occurred during the calendar year 1996 fire season was fairly close to the five-year average. Through November, 415 fire incidents that burned a total of 118,147 acres were reported (see Figures 7 and 8). The average number of fires over the last five years is 404 per year, and the average number of acres burned over each of the last five years is 32,346. Most of the land (99,985 acres) that burned in 1996 is in the eastern half of the state within cooperating counties.

DNRC also provided support to Disaster and Emergency Services on a number of nonfire incidents in 1996. These incidents involved areas of flooding, a hazardous material spill, a threat of flooding from a dam failure, and an extended law enforcement incident.

Fire Training

DNRC provides fire suppression training to the 53 counties in the State/County Cooperative Fire Protection program and organizes county fire forces. DNRC also trains department fire fighters and support personnel involved in direct protection, detection, communication, safety, prescribed fire, fire prevention, and incident management teams.

Development and Support

Through its equipment development program, DNRC obtains federal excess property and uses it to develop fire suppression equipment and vehicles. This equipment is used primarily to support the State/County Cooperative Fire Protection program. In FY 1996, DNRC obtained supplies and vehicles that have a total value of \$1,399,387 through the Federal Excess Property Program (FEPP). The equipment acquired through FEPP included a total of 20 vehicles.

Figure 7. Number of Fires on State-Protected Lands

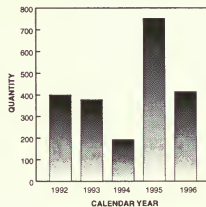


Figure 8. Acres Burned on State-Protected Lands

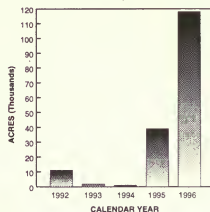


Table 6
Development Projects in FY 1996

Type 6 (200-gallon) wildland engines	9
Type 3 (1,000-gallon) engine	1
Pantry van truck	1
Pickup truck (4 x 4)	1
Redesigned water tenders	2

The 14 individual development projects that were completed in FY 1996 are listed in Table 6.

Aviation

The aviation program operates and maintains a fleet of eight aircraft (three fixed-wing and five rotary wing). The fixed-wing aircraft, which are located in Kalispell, Missoula, and Helena, are used for fire patrol and personnel transportation. Three medium Huey helicopters are stationed in Kalispell, Missoula, and Helena for fire support and suppression work. Two light helicopters (Bell 206s) are stationed in Helena. One of these is owned by the Department of Environmental Quality (DEQ). DNRC pilots fly this helicopter on DEQ and DNRC missions. The second light helicopter is used for backup or additional coverage.

In FY 1996, the aircraft flew a total of 848 hours.

Other program statistics are shown in Table 7.

Table 7
Aviation Program Accomplishments
in FY 1996

Detection	266 hours
Initial attack	95 hours
Support missions	218 hours
Administrative	269 hours
Water delivered	360,000 gallons

Service Forestry Programs

DNRC's service forestry programs provide products and services to various client groups and individuals. The State Nursery grows seedlings for private conservation plantings and reforestation of state-owned lands. Education emphasizing the stewardship and care of forest lands is funded and/or presented to private forest owners and resource professionals. Communities are assisted with the care and planting of their community forests. Montana's forest laws are upheld. Private forest land improvements are administered using federal cost-share funds. DNRC identifies and monitors forest health problems statewide.

Montana Conservation Seedling Nursery

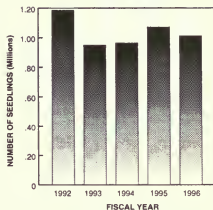
DNRC's nursery produces, sells, and distributes seedlings for conservation plantings such as reforestation, farmstead and field windbreaks, shelter belts, wildlife habitat, mine land reclamation, living snowfences, streambank stabilization, and other conservation uses.

In FY 1996, the nursery sold 1,016,000 plants, as itemized in Table 8. That total is 63,000 fewer than the number sold in FY 1995. Sales over the last five years are shown in Figure 9.

Table 8
Nursery Sales in FY 1996

Conservation seedlings	653,000
Seedlings for reforestation of school trust lands	<u>363,000</u>
TOTAL	1,016,000

Figure 9. Seedlings Sold



An excellent crop of 30,000 junipers will boost sales in FY 1997.

Forest Pest Management

This program provides pest surveys, training, and technical services to help recognize and manage damaging insects and diseases in Montana's forests. These activities are done in cooperation with the U.S. Forest Service's Northern Region Forest Health Protection Group.

Bark beetle populations have generally declined, although activity increased in some areas. The ongoing outbreak of mountain pine beetles killed lodgepole pine in extreme western Montana, subalpine fir at higher elevations in the southwestern part of the state, and numerous groups of ponderosa pine in the Bitterroot and Clark Fork river drainages.

The summer of 1995 was the first that no western spruce budworm defoliation was visible from the air since annual aerial surveys began in the early 1950s. Populations have not recovered from the collapse caused by weather in the spring of 1993.

Douglas-fir tussock moth populations were still very low. No defoliation was detected from either aerial or ground surveys. Population trends on 1.5 million acres of state, private, and federal lands were evaluated with 165 pheromone-baited traps placed on 33 permanent plots, and, for the first time since annual pheromone trapping of adult males began, no moths were caught.

Foliage diseases continued at generally high levels affecting western larch, ponderosa pine, and lodgepole pine. Elytroderma needlecast disease and Diplodia tip blight on ponderosa pine continued in many areas of northwestern Montana. Larch needlecast and needle blight were also very evident.

Some of the FY 1996 program accomplishments are listed in Table 9.

Table 9 Forest Pest Management Activities in FY 1996	
DNRC timber sales provided with insect and disease management recommendations	10
Professionals trained in basic pest identification	30
Professionals trained in advanced pest management	45
Loggers and private landowners trained in pest identification and management	40
Pest samples identified and management treatments recommended	28
Aerial survey completed and sketch maps distributed to unit offices	3 million acres
DNRC timber sale analyses written	4

The program also completed and distributed the annual *Montana Insect and Disease Conditions* report (along with the USFS); provided survey results from 50 gypsy moth traps to local, state, and federal cooperating agencies; and assisted numerous landowners with individual pest problems.

Forestry Assistance

The forestry assistance program provides a range of services to private forest landowners and economic development organizations. By conveying forestry knowledge and information, this program helps Montanans perform forestry work that results in good land stewardship, a healthful environment, personal profit, and general economic development.

In FY 1996, DNRC provided 959 forestry assists, including 140 timber sale assists, to 575 landowners. Federal pass-through funding was used to finance 10 landowner stewardship workshops that 196 private landowners attended. The landowners wrote 94 stewardship forest management plans covering 387,490 acres. These plans, certified by stewardship advisors, represent thoughtful future management of those lands.

Fifty private landowners participated in forestry conservation cost-share programs. The major activities involved thinning 660 acres and planting 15,000 reforestation seedlings. Federal financial cost-share assistance was approved in the amount of \$60,471 for these projects.

Timber Slash

The timber slash program implements state laws pertaining to control of timber slash and debris on private land for the purpose of fire prevention. The department carries out its responsibilities by entering into a bonded contract, called a Hazard Reduction Agreement (HRA), with the private party in charge of each cutting. The program handled 1,279 new HRAs in FY 1996 (see Figure 10), while another 1,389 HRAs were certified and closed.

The timber slash program collected an estimated \$212,000 in administrative fees in FY 1996. In addition, a total of \$65,971 was collected and distributed to Montana State University's Extension Forestry Program.

Forest Practices

The forest practices program provides information and education about forestry best management practices (BMPs) to private persons, corporations, and other agencies. The program also includes standards for all forest practices conducted in streamside management zones (SMZs). The purpose of the program is to help people comply with voluntary and mandatory measures designed to protect soil, water, and wildlife resources during timber harvests and related operations. In FY 1996, the services listed in Table 10 were provided.

Figure 10.
Hazard Reduction Agreements

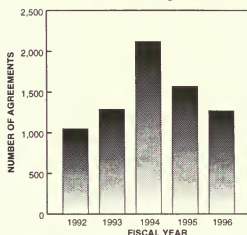


Table 10
Forest Practices Activities
in FY 1996

BMP pre-harvest informational packages mailed to landowners	1,279
On-site consultations	145
Post-harvest evaluations	66
Alternative practices issued	48
SMZ warnings issued	38
SMZ orders issued	10

The program also conducted 10 BMP field workshops for loggers in cooperation with the Montana Loggers Association. Audits conducted on 44 timber sales showed BMPs are properly applied and effective at protecting soil and water resources over 90 percent of the time.

Community Forestry

DNRC's community forestry program is currently funded by an annual U.S. Forest Service grant, established under the 1990 Farm Bill's National Urban and Community Forestry Program. Our statewide program provides direct professional assistance to community leaders, volunteer tree care organizations, and "green" industry professionals. By providing up-to-date technical and financial assistance, Montana's community forestry program educates Montana residents about community forestry and assists Montana communities in establishing and maintaining healthy and safe community forests.

The community forestry program continues to work closely with other agencies and organizations across Montana. Key partners include the Montana Association of Nurserymen, the U. S. Natural Resource Conservation Service (NRCS), Montana Resource Conservation and Development Areas (RC&Ds), the University of Montana Cooperative Extension, the League of Cities and Towns, and local groups such as tree and park boards and affiliated service organizations.

The main goals of our program are:

- Increasing statewide awareness of the importance of community forests
- Fostering a citizenry ready to support and participate in comprehensive community forestry programs
- Developing leadership, organization, and resources within communities to carry out successful community forestry programs
- Making technical advice and assistance readily available to administrators and both community forestry volunteers and professionals as they carry out community forestry management plans

In FY 1996, the DNRC community forestry program assisted 100 communities and 41 volunteer groups. Twenty-five Tree City USA Awards were presented. Community forestry programs were active in 57 communities. Some of the major categories of assistance are shown in Table 11.

Table 11
Major Categories of Community
Forestry Activities in FY 1996

Arbor Day activities	94
Planning assists	251
Street tree inventory assists	62
Local grant project assists	300
Information and education	283

Overall, the DNRC community forestry program provided a total of 1,938 assists to Montana communities and tree care organizations in FY 1996.

OIL AND GAS CONSERVATION

Prevent waste and provide for the conservation of crude oil and natural gas through regulation of exploration and production.

The quasi-judicial Board of Oil and Gas Conservation (BOGC) and its technical support staff in the Oil and Gas Conservation Division are attached to the Department of Natural Resources and Conservation for administrative purposes. The board consists of seven members appointed to four-year terms by the governor. The board's primary responsibility lies in the conservation and prevention of waste through the regulation of oil and gas exploration and production.

In regulating all of this activity, the board relies heavily on its Oil and Gas Conservation Division staff. The division is headquartered in Billings, with field inspectors in Glendive, Plentywood, Roundup, and Shelby and an administrative office in Helena. The tools available to accomplish oil and gas regulation include permits, bonds, rules, and BOGC orders. The field inspectors, who conduct on-site visitations and investigations, can issue deficiency reports. The board is also empowered to levy both civil and criminal fines when necessary.

The board's regulatory actions serve four primary purposes:

- To prevent waste of oil and gas resources
- To conserve oil and gas by encouraging maximum efficient recovery of the resource
- To protect the correlative rights of the mineral owners, i.e., the right of each owner to recover its fair share of the oil and gas underlying its lands
- To prevent oil and gas operations from harming nearby land or underground resources

It accomplishes these goals by establishing spacing units, issuing drilling permits, administering bonds (required to guarantee the eventual proper plugging of wells and restoration of the surface), classifying wells, and adopting rules. BOGC also repairs old, abandoned, problem wells. It maintains a library of well cutting samples and core samples in Billings. (The cores, themselves, are stored in the U.S. Geological Survey Depository in Arvada, Colorado.) Since 1993, the board has performed the certification required for companies to receive tax incentives available for horizontal wells and enhanced recovery projects. An even newer responsibility is the Underground Injection Control Program.

The oil and gas program is supported chiefly by the oil and gas conservation tax (0.3 percent of the value of the oil and gas produced and sold, less government royalties).

The Underground Injection Control Program

The Board of Oil and Gas Conservation is the regulatory agency for the underground injection control (UIC) program for Class II injection or disposal wells in Montana. This program, which is authorized under Section 1425 of the Safe Drinking Water

Act, was previously administered by a federal agency, the U.S. Environmental Protection Agency (EPA). State administration of the UIC has been sought for several years.

A Class II injection well is one that (1) reinjects fluids that have been brought to the surface during oil and gas production, (2) is used to inject fluids for the enhanced recovery of oil or gas, or (3) is used to inject fluids for storage of liquid hydrocarbons.

The objective of the UIC program is to protect underground sources of drinking water. To accomplish this, the board may (1) issue, suspend, revoke, modify, or deny permits; (2) regulate the volume and characteristics of the fluids to be injected; (3) impose operational requirements for a well; (4) investigate conditions, access records, inspect equipment and methods, and sample fluids used by operators; and (5) adopt standards for the design, construction, testing, and operation of Class II injection wells.

Operators apply through the public notice and hearing process by notifying the Billings or Helena Oil and Gas Conservation Office. Operators must file specific information about the company and its officers and meet other application requirements.

The board's jurisdiction applies to all but Indian lands. The costs of the program will be covered by a charge of \$200 per injection well per year and an EPA operating grant for \$104,000 for federal fiscal year 1997.

Activity Review

Montana's oil production was 16.5 million barrels in 1995, virtually unchanged from the previous year. Oil production is shown by region in Figure 11, while Table 12 presents information about oil production over the last five years. Crude oil production since 1943 is illustrated in Figure 12.

Figure 11. Oil Production by Region in 1995
(16,525,824 Barrels)

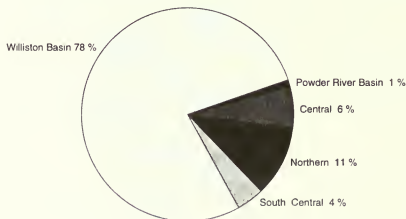
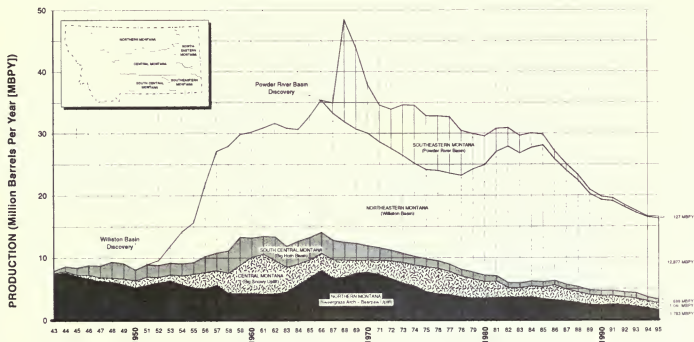


Table 12
Five-Year Summary of Oil Production in Montana

	1991	1992	1993	1994	1995
OIL PRODUCTION IN BARRELS					
Northern Montana	2,510,130	2,426,783	2,143,943	2,003,272	1,783,331
South Central	804,003	832,590	772,668	733,965	698,537
Central	1,393,046	1,227,475	1,095,551	955,703	1,040,127
Williston Basin	14,380,288	13,637,695	13,110,882	12,747,075	12,877,305
Powder River Basin	485,881	355,139	272,517	90,965	126,524
TOTAL	19,573,348	18,479,672	17,395,561	16,530,980	16,525,824
NUMBER OF PRODUCING OIL WELLS					
Northern Montana	2,534	2,568	2,408	2,324	2,093
South Central	123	138	122	136	132
Central	310	287	298	272	249
Williston Basin	1,338	1,338	1,287	1,311	1,310
Powder River Basin	79	69	66	71	28
TOTAL	4,384	4,400	4,171	4,114	3,812

Figure 12
Crude Oil Production in Montana
1943 - 1995

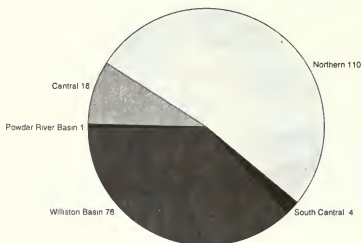


Gas production decreased slightly from 51.8 million MCF in 1994 to 50.7 million MCF in 1995. Table 13 summarizes production, imports, and exports of both oil and gas in 1995.

Table 13
Summary of 1995 Oil and Gas Activities

OIL	
	BARRELS
Oil Produced	16,525,624
Oil Imported From:	
Canada	36,265,545
Wyoming	10,074,062
TOTAL	46,339,607
Oil Exported	13,500,000
GAS	
	MCF
Gas Withdrawals:	
Natural	44,329,966
Associated	6,397,896
TOTAL	50,727,864
Gas Imported From:	
Canada	17,572,421
North Dakota	11,694,243
Wyoming	6,312,996
TOTAL	37,779,660
Gas Exported To:	
North Dakota	16,659,356
South Dakota	836,861
Wyoming	2,091,606
Midwest	16,012,558
TOTAL	35,600,381

Figure 13. Wells Completed in 1995 By Region
(211 Wells)



Well drilling slipped from 232 wells drilled in 1994 to 211 new wells in 1995. Figure 13 shows the wells completed by region, while Table 14 presents the wells by county. There were 80 new gas wells and 60 new oil wells completed during the year. Table 15 details well-drilling activity from 1991 through 1995.

Table 14
Summary of 1995 Well Drilling by County

COUNTY	DEVELOPMENT			EXPLORATORY			SERVICE WELLS	TEMP. ABAND.	TOTAL WELLS
	OIL	GAS	DRY	OIL	GAS	DRY			
Big Horn	0	0	1	0	0	0	0	0	1
Blaine	0	5	0	0	8	2	0	0	13
Carbon	0	0	0	0	0	0	2	0	2
Chouteau	0	0	0	0	2	2	0	0	4
Daniels	0	0	0	0	0	1	1	0	2
Dawson	2	0	0	0	0	0	0	0	2
Fallon	34	14	0	2	0	0	0	0	50
Garfield	0	0	0	0	0	3	0	0	3
Glacier	7	8	2	0	0	0	4	0	21
Hill	0	1	1	0	6	1.0	0	0	18
Liberty	0	3	0	0	0	0	0	0	3
Musselshell	0	0	0	0	0	6	0	1	7
Phillips	0	15	1	0	0	0	0	0	16
Pondera	0	0	0	0	0	3	0	0	3
Powder River	0	0	0	0	0	1	0	0	1
Richland	5	0	0	0	0	0	0	1	6
Roosevelt	2	0	0	1	0	3	0	0	6
Rosebud	0	0	0	1	1	.6	0	0	8
Shenando	1	0	2	3	0	4	1	0	11
Stillwater	0	0	1	0	0	0	0	0	1
Toole	1	19	6	0	0	2	2	0	30
Valley	0	0	0	0	0	1	0	1	2
Wibaux	1	0	0	0	0	0	0	0	1
TOTAL	53	65	14	7	15	44	10	3	211

1. Temporary Abandoned

Table 15
Five-Year Summary of Wells Drilled

	1991	1992	1993	1994	1995
DEVELOPMENT WELLS DRILLED					
Oil Wells	46	36	39	34	53
Gas Wells	140	136	80	78	65
Dry Holes	34	31	18	29	14
Service Wells	6	4	1	5	10
TOTAL	226	207	138	146	142
EXPLORATORY WELLS DRILLED					
Oil Wells	2	1	9	23	7
Gas Wells	17	8	3	12	15
Dry Holes	32	41	29	45	44
Temporary Abandoned	1	2	3	6	3
TOTAL	52	52	44	86	69
TOTAL	278	259	182	232	211

Geophysical activities remained at a level similar to that established during 1994. Seven geophysical contractors were active during the year, and 30 seismic projects were completed. The Williston Basin in northeastern Montana received most of the seismic activity. A significant number of the permitted projects involved 3-D techniques.

Horizontal wells permitted in 1995 included 33 new horizontal wells and 9 recompletions or redrills of vertical wells. The Board of Oil and Gas Conservation approved the expansion of 6 existing secondary recovery projects, thereby qualifying the incremental increase in production for a lower tax rate.

The board's staff issued 267 permits to drill during the year, performing environmental assessments for each application involving private or state-owned lands prior to permit issuance.

BOGC issued 85 orders during the year. Most of these orders authorized increased well density to accommodate in-fill drilling programs, established permanent spacing for horizontal wells and exception wells, delineated new fields, and allowed exceptions to existing field rules.

BOGC plugs or restores "orphaned" wells (those for which either no responsible party can be found, or the responsible party is financially unable to carry out its duties) using funds from DNRC's reclamation and development grants program that are made available in the form of a limited funding priority. The activities listed below took place in Fiscal Year 1996.

- BOGC completed the Kevin-Sunburst Plugging and Reclamation Project, which involved plugging the well bore and reclaiming the surface at 26 abandoned oil and gas test well sites in Toole and Liberty Counties.
- Because the Cat Creek Field Plugging Project (involving three abandoned oil and gas well sites in Petroleum County) was completed for less than the cost originally estimated, BOGC applied to use the remaining funds to plug several additional wells flowing (or potentially flowing) water and oil to the surface.
- BOGC developed a request for proposals for the Devils Basin Project and contracts for the three South Cut Bank Field Projects.

In 1995 the board appointed a subcommittee to review shut-in wells and financial assurance requirements for both producing and nonproducing wells. As a result of the study, the board has prepared proposed legislative changes.

BOGC adopted rules governing its administration of the underground injection control program. These rules became effective on May 10, 1996.

RESERVED WATER RIGHTS COMPACT COMMISSION

Working to "conclude compacts for the equitable division and apportionment of water between the state and its people and the several Indian Tribes claiming reserved water rights within the state." MCA 85-2-701

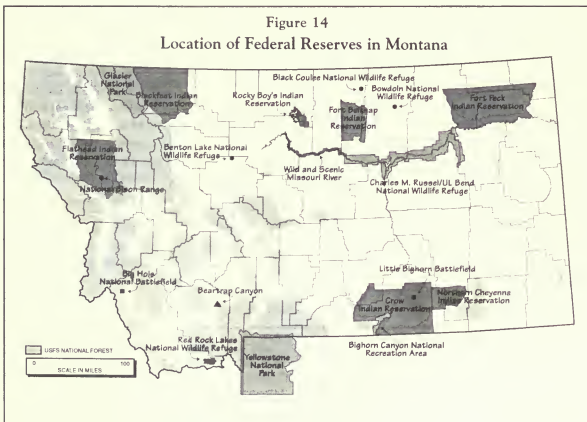
The Montana Legislature created the Reserved Water Rights Compact Commission (RWRCC) in 1979, the same year that it created the Montana Water Court. The purpose of the commission is to negotiate, on behalf of the State of Montana, with Indian Tribes and federal agencies claiming federal reserved water rights in the state. While they are being negotiated, the claims of the Tribes and federal agencies are suspended from adjudication in the Water Court. After being submitted for public comment in the specific area impacted, a negotiated settlement is ratified by the Montana Legislature and the Tribal Council (in the case of Indian reserved rights) and approved by the appropriate federal authorities.

The commission is made up of nine members who serve for four-year terms. One member is appointed by the Attorney General's Office, four by the Governor's Office, two by the Speaker of the House, and two by the President of the Senate. Montana was one of the first states to conduct such negotiations, and it is still the only state to do so using a commission. The RWRCC is supported by an 11-member staff.

Federal Reserved Water Rights

A federal reserved water right is a right to water that was created when Congress or the President of the United States reserved land out of the public domain. Federal reserves in Montana are shown in Figure 14. It was intended that enough water be reserved to meet the purposes for which the reserved lands were designated.

Figure 14
Location of Federal Reserves in Montana



The date that the land was withdrawn and the reservation created is the priority date of a federal reserved water right. Reserved water rights for Indian reservations, for instance, go back to the 1800s. Federal reserved water rights do not have the same restrictions placed on them as on state appropriative rights. For example, a notice of appropriation or a beneficial use is not required to maintain a federal reserved right, and it is not lost due to non-use.

Completed Compacts

The commission has completed the four compacts listed in Table 16.

Table 16
Compacts Concluded by the
Reserved Water Rights Compact Commission

Compact	Date	Comments
Fort Peck - Assiniboine and Sioux Tribes MCA 85-20-201	May 1985	This compact contains a provision for water marketing by the Tribes, making federal legislation necessary. That federal legislation has not yet passed. This compact is currently under consideration by the Water Court.
Northern Cheyenne Tribe MCA 85-20-301	September 1992	Included in the compact is a requirement that the federal government and the State of Montana contribute funds to repair and enlarge the unsafe Tongue River Dam. Planning and oversight of dam construction are being handled by the DNRC Water Resources Division. This compact has been approved by the Water Court.
U.S. National Park Service Yellowstone National Park Glacier National Park Big Hole National Battlefield MCA 85-20-401	January 1994	This compact includes an article providing a controlled groundwater area to protect the hydrothermal system in Yellowstone National Park.
U.S. National Park Service Little Bighorn Battlefield National Monument Bighorn Canyon National Recreation Area MCA 85-20-401	May 1995	Codified with the first compact with the National Park Service (above), this compact has been filed with the Water Court.

Current Negotiations

Commission members and staff have been concentrating on negotiations concerning two Indian reservations and three federal agencies.

Indian

Chippewa Cree Tribe of the Rocky Boy's Indian Reservation

During Fiscal Year 1996, the commission, Tribe, and U.S. made positive strides toward completing the negotiations, which began in 1992. Discussions have focused on allocation of water arising on the reservation and a supply of adequate drinking water to the reservation. Commission staff, working closely with individuals claiming water from sources shared with the reservation, have reached an agreement that addresses many of their concerns. The commission and the Tribe hope to present a compact to the 1997 legislature settling the on-reservation water rights.

Studies concerning the appropriate means to meet the Tribe's drinking water needs are ongoing. That supply will not be part of the 1997 legislation, but the needs could be satisfied by water allocation in the 1997 compact or by imported water. Studies have grown in scope to include a broader region with drinking water problems similar to those on the reservation. DNRC, the Department of Environmental Quality (DEQ), and the commission are working with municipalities and rural water systems in the area to determine whether a regional water supply is feasible.

Crow Tribe of the Crow Reservation

The commission has had several negotiating sessions with the Crow Tribe. Ongoing technical work includes, among other things:

- Development of a hydrologic model of the river systems on the reservation
- Completion of work on a comprehensive land ownership map
- Examination of state-based water claims in the Pryor Creek basin by the DNRC Water Resources Regional Office in Billings
- Evaluation of land arability and soils classifications

Legal issues involving land status are being researched, and irrigated lands in Big Horn County have been put into digital format.

Federal

U.S. Department of the Interior, Bureau of Land Management Wild and Scenic Missouri River

The commission and technical and legal staff members have been working with the U.S. Bureau of Land Management (BLM) for more than three years. Discussions have focused on proposed depletion amounts for the upper Missouri River basin, and several proposals have been exchanged. The parties have been working on an agreement for monthly volumes for future use by state-based water users, with the remaining water to be dedicated to instream flows for the Wild and Scenic River. A working group from BLM, the U.S. Bureau of Reclamation, and DNRC was appointed to recommend

approaches to calculating future monthly depletions, among other things; however, some issues are yet to be resolved. The technical working group continues to believe that this negotiation could also be completed in time to present to the 1997 legislature.

U.S. Department of the Interior, Bureau of Land Management Beartrap Canyon, Madison River

The U.S. Bureau of Land Management claims instream flows for Beartrap Canyon on the Madison River for public recreational use. Beartrap Canyon lies directly below Ennis Dam, which is owned and operated by Montana Power Company (MPC). BLM is claiming 1,100 cubic feet per second (cfs) for instream flows. The Federal Energy Regulatory Commission (FERC) will require releases from Ennis Dam of 1,100 cfs as part of MPC's relicensing under FERC procedures. A few outstanding issues remain, but a compact has been drafted and is currently being reviewed. The commission hopes to have a Beartrap Canyon compact to present to the 1997 legislature.

U.S. Department of the Interior, Fish and Wildlife Service National Wildlife Refuges

The U.S. Fish and Wildlife Service (FWS) is claiming federal reserved water rights for only these six national wildlife refuges in Montana:

- Benton Lake National Wildlife Refuge
- Black Coulee National Wildlife Refuge
- Bowdoin National Wildlife Refuge
- Charles M. Russell/UL Bend National Wildlife Refuge
- Red Rock Lakes National Wildlife Refuge
- The National Bison Range

Negotiations with FWS opened in spring of 1995, and sessions were held during the early part of FY 1996. The commission analyzed proposals for Benton Lake and Black Coulee and contacted the public in those areas by telephone and public meeting. During that time, joint technical work proceeded on Red Rock Lakes.

In July 1996, agreements were reached on the proposals for Benton Lake and Black Coulee, and FWS was developing a proposal for Red Rock Lakes. As of September 1996, a draft compact for Benton Lake and Black Coulee was being reviewed by all parties with the goal of presenting the two units to the 1997 Montana Legislature. FWS has agreed to split the units into separate compacts if work on all units cannot be completed prior to the legislative session.

U.S. Department of Agriculture, Forest Service Agricultural and Sheep Experiment Stations

Negotiators met in the spring of 1996 and discussed moving ahead with Phase II of the Memorandum of Understanding executed between the commission and the U.S. Forest Service (USFS) in 1992. The negotiating parties have been working to determine (1) whether to move ahead with several test basins in Montana national forests, and (2) what methodologies will be used to analyze natural flows in the forests. Negotia-

tors have not discussed the reserved rights of the Agricultural and Sheep Experiment Stations at this point. Commission staff are tracking activities in Idaho, Wyoming, and Colorado regarding USFS federal reserved water rights. The commission and USFS are working together to develop a comprehensive mailing list for notification of the public regarding negotiations.

Preliminary Discussions

The commission has had some preliminary discussions with the Assiniboine and Gros Ventre Tribes of the Fort Belknap Indian Reservation and the Confederated Salish and Kootenai Tribes of the Flathead Reservation regarding future negotiations.

Assiniboine and Gros Ventre Tribes of the Fort Belknap Reservation

The commission, the Fort Belknap Reservation Tribes, and federal team members met early in 1995 and agreed to delay formal negotiations, but to proceed with joint technical work necessary to develop practical solutions to the water supply problems in the area. The parties held a meeting near the end of 1995, during which the Tribes presented their latest water claim and the commission presented the technical work completed on current irrigation in the Milk River basin. Early in 1996, the technical staff of both parties discussed moving forward with a clarification of the Tribal water claims. Commission review of these claims is continuing. Commission staff are also working on their evaluation of irrigation in the Milk River basin. The parties plan to meet in December 1996 to discuss the commission's evaluation of the Tribes' claims and practical solutions to allocation of water.

Confederated Salish and Kootenai Tribes of the Flathead Reservation

The commission and the Tribes met during mid-1995 to consider the commission's workload and Tribal goals regarding negotiations. The Tribes arranged a reservation field trip for the commission and staff in July 1995. Currently, the parties are working to finalize a Memorandum of Understanding.

Other Reserved Rights

The Turtle Mountain Chippewa Tribe owns numerous small allotments scattered throughout Montana. At this time, no negotiations or technical work have been started with the Turtle Mountain Chippewa for settlement of its federal reserved water rights in Montana.

The Blackfeet Tribe has declined to enter into negotiations with the commission and is pursuing settlement of its reserved water rights claims in Water Court. The State of Montana is being represented by the Attorney General's Office.

TRUST LAND MANAGEMENT DIVISION

Manage the State of Montana's trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.

Overview

History

By the Enabling Act approved February 22, 1889, the Congress of the United States granted to the State of Montana, for common school support, sections sixteen and thirty-six in every township within the state. Some of these sections had been homesteaded, some were within the boundaries of Indian reservations, and yet others had been otherwise disposed of before passage of the Enabling Act. To make up for this loss, and in lieu thereof, other lands were selected by the State of Montana.

The Enabling Act and subsequent acts also granted acreage for other educational and state institutions, in addition to the common schools. The original common school grant was for 5,188,000 acres. The additional acreage provided for other endowed institutions included 668,720 acres, for a total of 5,856,720 acres. The total acreage figure (see Figure 15) fluctuates through the years due to land sales and acquisitions. Mineral acreage now exceeds surface acreage because the mineral estate has been retained when lands are sold.

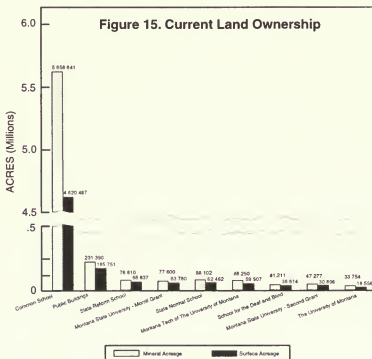
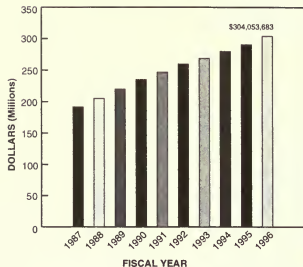


Figure 16. Permanent Fund Balance



The Permanent Fund

The Enabling Act provided that proceeds from the sale and permanent disposition of any of the trust lands, or part thereof, shall constitute permanent funds for the support and maintenance of the public schools and the various state institutions for which the lands had been granted. The Montana Constitution provides that these permanent funds shall forever remain inviolate, guaranteed by the State of Montana against loss or diversion. These funds are often referred to as "nondistributable." The permanent trust balance is shown in Figure 16; Table 17 shows nondistributable receipts for each of the last five fiscal years.

Interest and Income

The Enabling Act further provided that rentals received on leased lands, interest earned on the permanent funds arising from these lands, interest earned on deferred payments on lands sold, and all other actual income shall be available for the maintenance and support of such schools and institutions. These funds are referred to as "distributable"; receipts for each of the last five fiscal years are detailed in Table 18.

Table 17
Nondistributable Receipts

Source	(Fiscal Year)				
	1992	1993	1994	1995	1996
Installments on land sales	\$ 33,434	\$ 39,664	\$ 17,542	\$ 17,627	\$ 14,790
5% of annual school interest income	2,085,059	2,193,351	2,154,925	1,994,962	2,212,199
Timber sales	4,038,261	1,488,558	1,938,947	896,322	1,722,482
Rights-of-way	100,704	96,002	87,021	253,458	269,642
Oil royalties	2,556,997	2,251,402	1,669,113	2,211,546	2,569,615
Gas royalties	832,843	841,818	754,417	664,063	781,015
Coal royalties	1,489,909	1,726,767	3,632,514	3,462,707	3,028,972
Sand & gravel	164,465	99,470	157,564	178,985	118,458
Miscellaneous	122,959	140,765	168,213	189,299	76,473
TOTAL	\$11,424,631	\$8,877,797	\$10,580,256	\$9,868,969	\$10,793,646

Distribution of Revenues

Total revenues distributed to the trusts in FY 1996 are listed in Table 19. Each section of state trust land is assigned to a specific trust. Distribution of revenues is handled in three different ways, as explained in the following subsections, depending on the section of trust land that generated the revenue.

The Trust Land Management Division also administers land for some other state agencies, in addition to state trust land. Revenue generated from that land is transferred directly to the state agency.

Table 18
Total Distributable Receipts

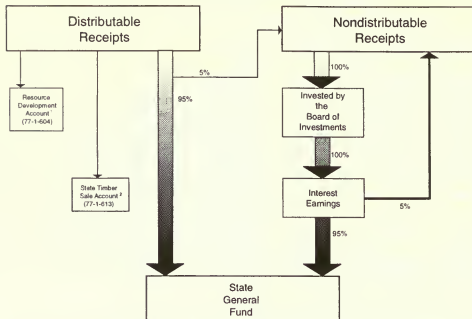
Source	(Fiscal Year)				
	1992	1993	1994	1995	1996
Grazing leases	\$4,341,521	\$4,178,056	\$4,264,030	\$ 4,726,597	\$4,385,636
Agricultural leases	8,703,800	7,660,483	9,486,264	8,108,128	10,087,192
Oil & gas leases	974,390	882,720	1,086,708	1,232,747	1,437,709
Oil & gas penalties	390,309	242,082	218,941	237,456	209,445
Oil & gas bonuses	57,518	123,212	498,875	661,034	2,574,287
Timber sales ¹	2,422,419	3,074,174	3,769,170	3,455,393	1,754,060
Interest on certificates of purchase	10,554	7,892	5,450	4,786	3,817
Trust and legacy interest	26,683,372	30,154,986	25,212,411	21,756,639	29,952,079
Other revenues	535,202	780,375	880,018	945,335	1,132,377
Transaction fees	135,605	170,426	178,308	157,292	134,543
TOTAL	<u><u>\$44,254,690</u></u>	<u><u>\$47,274,406</u></u>	<u><u>\$45,600,175</u></u>	<u><u>\$41,285,407</u></u>	<u><u>\$51,671,145</u></u>

1. Timber sale receipts for the Common School Trust are distributable receipts (beginning January 1, 1992).
Timber sale receipts for the other trusts continue to be nondistributable receipts.

Table 19
FY 1996 Trust Revenue

Trust	Distributable Revenue	Nondistributable Revenue
Common Schools	\$48,460,280	\$8,927,814
Other Trusts		
The University of Montana	218,357	6,501
Montana State University - Morrill Grant	342,197	-3,395
Montana State University - Second Grant	611,905	684,639
Montana Tech of The University of Montana	570,897	159,945
State Normal School	482,783	299,961
School for the Deaf and Blind	232,032	287,453
State Reform School (Pine Hills)	371,743	91,922
Public Buildings	603,130	0

Figure 3. Distribution of Revenues for the Common School Trust



1 The Resource Development Account is limited to 2.5 percent of distributable receipts excluding timber sale income. The purpose of the account is to invest in improving and developing state trust lands in order to increase the income-producing capacity of the lands.

2 The State Timber Sale Account, comprised of timber sales revenue, contains that amount appropriated by the legislature each year to be used specifically for timber sale preparation and documentation. The amount appropriated in FY 1996 was \$874,741.

Common School Trust

The distribution of revenues generated from common school trust land is illustrated in Figure 17. From the distributable receipts, a small percentage is used to fund the Resource Development Account and the State Timber Sale Account. Ninety-five percent of the remaining distributable revenues are distributed yearly to the state general fund for use by the public schools of the state. The other 5 percent, together with nondistributable revenues, comprise the permanent fund. The interest earned on the permanent fund is also distributed to the general fund for use by the public schools, with the exception of 5 percent, which is returned to the permanent fund for reinvestment.

Other Trusts

Distribution of revenues to the other trusts is similar, with two exceptions. (1) All distributable receipts (income and interest) from these trusts flow directly to the trust recipient, and (2) the State Timber Sale Account is funded only from the common school trust lands. Included in "other" trusts are:

- The University of Montana
- Montana State University - Morrill Grant
- Montana State University - Second Grant
- Montana Tech of The University of Montana
- State Normal School (Montana State University-Billings and Western Montana College of The University of Montana)
- School for the Deaf and Blind
- State Reform School (Pine Hills)

Public Buildings

Revenue received on public buildings trust land is all distributed to the Department of Administration. There is no permanent fund for the public buildings trust.

Purpose

The purpose of the Trust Land Management Division is to administer and manage the state trust timber, surface, and mineral resources for the benefit of the common schools and the other endowed institutions in Montana. The department's obligation is to obtain the greatest benefit for the school trusts. The greatest monetary return must be weighed against the long-term productivity of the land to ensure continued future returns to the trusts. The division is divided into four bureaus: agriculture and grazing management, forest management, minerals management, and special use management.

The Trust Land Management Division distributed over \$51 million in earnings and interest directly to the schools in FY 1996. This amount equated to over \$290 per student in the public school system. In addition, the program invested almost \$11 million into permanent funds in FY 1996, increasing the balance to \$304,053,683.

Agriculture and Grazing Management

The Agriculture and Grazing Management Bureau is responsible for leasing and managing approximately 10,000 agreements for surface uses on 4.9 million acres of school trust lands throughout the state.

Surface Leasing

The surface leasing program is responsible for processing approximately 1,000 lease renewals annually; advertising, competitively bidding, and issuing approximately 50 new leases annually; reviewing and processing assignments, subleases, pasturing agreements, custom farming agreements, pledges, and mortgages; and collecting, verifying, and posting rentals and fees.

Agricultural Lands

Currently 3,000 agreements include agricultural use of trust lands. Crops raised on state trust lands are primarily dryland small grain crops, but also include irrigated grain crops, corn, sugar beets, potatoes, canola, safflower, hay, alfalfa seed, and native grass seed.

In FY 1996, revenue totaling \$10,087,192 was received from agricultural leasing (see Figure 18). The majority of the agreements are on a crop-share rental basis with a minimum crop share of 25 percent dictated by statute. In addition to receiving rental payments from the lessees, the state participates in and receives farm program payments from the USDA Consolidated Farm Service Agency (CFSA), to the extent allowed by the Food Security Act of 1985; the Food, Agriculture, Conservation, and Trade Act of 1990; and the Agricultural Market Transition Act of 1996.

Grazing Lands

Approximately 8,500 agreements include grazing use of trust lands. Approximately 1,050,000 animal unit months (AUMs) are allocated on 4.3 million acres of classified grazing and forest lands. In FY 1996, grazing leases generated \$4,385,636 (see Figure 19).

Land Management

The land management program manages the agricultural and grazing assets on lands administered by the bureau. This responsibility includes compliance with the Montana Environmental Policy Act (MEPA); administration of archeological, paleontological, and historical properties on state trust land; investigations of lease noncompliance; participation in the Federal Farm Program; and oversight of water developments, water rights, and improvement projects such as range renovations and resource development.

Figure 18. Agricultural Rentals

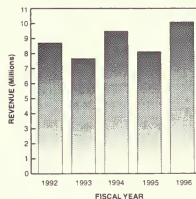
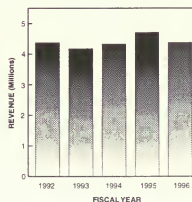


Figure 19. Grazing Rentals



During FY 1996, approximately 400 additional water rights were filed for on state trust lands for the statewide water rights adjudication process. Most of these water rights are used for irrigation purposes, adding significant value to those lands and increasing the annual revenues collected. These filings were done under Senate Bill 310, which was passed by the 1993 Montana Legislature and allowed landowners to file late water claims.

Also during FY 1996, the bureau began developing integrated noxious weed management agreements. These agreements will be entered into with each county weed district and will detail how the department will manage weeds on state trust lands using an integrated pest management approach.

Guidelines were developed in FY 1996 for conducting and reporting cultural resources inventory work on state trust lands. That work is the first of its kind among all state agencies in Montana. Guidelines for reporting human remains were also produced.

In addition, an archaeological investigation was conducted in FY 1996 to mitigate the effects of a trespass road that had been bladed through a prehistoric Indian campsite in Jefferson County. The results of that investigation indicate that the site was sporadically occupied for about 7,000 years. The information recovered from the site will be used to test and substantiate or refine current culture history models established for the Northern Plains region.

Forest Management

The Forest Management Bureau oversees forested, state-owned trust lands to provide income to the various school trusts. Income is derived from the sale of forest products.

The bureau also provides program direction and support to the field foresters, who have primary responsibility for on-the-ground land management activities. That support is provided in several subprograms or areas of expertise: forest land management, planning, hydrology, soils, economics, wildlife, and fisheries. Support and program direction are offered in several different ways: the development of resource management standards, site-specific review and recommendations for proposed management activities, and participation as members of interdisciplinary teams that develop land management proposals.

The State Forest Land Management Plan (SFLMP), approved by the State Land Board on June 17, 1996, guides the management of the forested trust lands. This guidance is provided in the form of general management philosophy and specific resource management standards. The strategic guidance provided by the SFLMP is summarized in this excerpt:

Our premise is that the best way to produce long-term income for the trust is to manage intensively for healthy and biologically diverse forests. Our understanding is that a diverse forest is a stable forest that will produce the most reliable and highest long-term revenue stream. Healthy and biologically diverse forests would provide for sustained income from both timber and a variety of other uses. They would also help maintain stable trust income in the face of uncertainty regarding future resource values. In the foreseeable future timber management will continue to be our primary source of revenue and primary tool for achieving biodiversity objectives.

Forest Improvement

The forest improvement program uses fees from harvested timber to improve the health and productivity of trust forests. Uses of these fees authorized by statute include disposal of logging slash, reforestation, acquiring access and maintaining roads necessary for timber harvest, other treatments necessary to improve the condition and income potential of state forests, and compliance with other legal requirements associated with timber harvest. Specific activities include piling of logging slash, prescribed burning, site preparation, seed collection, seedling production, tree planting, thinning, genetic tree improvement, erosion control, and culvert replacement.

In FY 1996, the activities listed in Table 20 were undertaken to improve the health and productivity of forested state trust lands.

Table 20
Forest Improvement Activities in FY 1996

Mechanical brush disposal/site preparation	1,388 acres
Herbicide site preparation	397 acres
Slashing cull and nonmerchantable trees	218 acres
Broadcast burning	105 acres
Burning of piled slash	457 acres
Tree planting	423,111 trees on 1,533 acres
Tree netting	546 acres
Precommercial thinning	73 acres
Seed collection (cones)	51 bushels
Tree improvement areas managed	15 acres

Forest Product Sales

The forest product sales program incorporates all activities and expenditures required to grow, harvest, and sell forest products from state trust lands efficiently. Activities within this program include field layout of timber sales; development of sale prescriptions; MEPA documentation; preparation of sale contracts, prospectuses, and notices; both field and office administration of timber sales; and sale billing and accounting. These responsibilities are shared among field foresters, area staff, and bureau staff.

In FY 1996, 23 timber sales were prepared totaling 35.7 million board feet. All timber sales are developed, analyzed, and reviewed in the field by foresters and resource specialists to ensure those sales comply with the State Forest Land Management Plan (SFLMP) and all applicable laws. During the year, \$3,476,542 in revenue was generated from the harvest of timber. As shown in Figure 20, the volume of timber prepared for sale has steadily increased since 1993, but the revenue from timber has not yet increased (see Figure 21). This effect is caused by a substantial increase in the uncut volume under contract (i.e., timber that has been sold, but not yet harvested). As a result,

Figure 20. Timber Volume Prepared for Sale

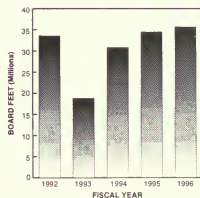
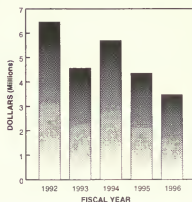


Figure 21. Timber Revenue Received



the department has not yet collected the revenue on that volume. An increase in timber revenues is expected in coming years as the uncut volume under contract is harvested.

In FY 1996, soils and hydrology specialists in the Forest Management Bureau participated in the DNRC Forestry Division's fifth biennial review of how well water quality protection practices (i.e., best management practices, or BMP's) are being implemented across the state. Preliminary results suggest that BMP compliance on DNRC timber sales on state trust lands is very good, which is consistent with past results.

Inventory

The inventory program is responsible for the collection and analysis of forest resource inventory data in Montana. The program provides a current, comprehensive inventory of the timber resources on 617,000 acres of forested land administered by the Department of Natural Resources and Conservation. Stand-level inventory maps have been drawn and resource data collected for 390,800 acres of state trust land, including 351,500 acres of the department's forested land. The development and maintenance of a geographic information system (GIS) used to support planning for forest management activities and environmental analyses is another responsibility of this program.

In FY 1996, the inventory program added 36,400 acres to the stand-level inventory and updated the existing stand inventory maps and data for 6,400 acres. The GIS provided analysis and maps for nine forest land management projects and updated existing maps and associated databases.

Minerals Management

The Minerals Management Bureau is responsible for leasing, permitting, and managing approximately 2,635 oil and gas, metalliferous and non-metalliferous, coal, and sand and gravel agreements on 6.3 million acres of school trust lands and more than 100,000 acres of other state-owned land throughout Montana.

Mineral Leasing

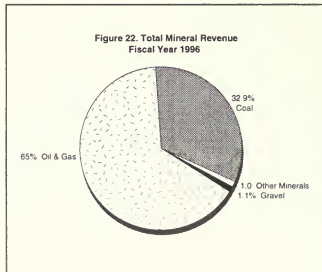
The mineral leasing program is responsible for reviewing and processing all mineral lease and permit applications; advertising, competitively bidding, and issuing new leases; reviewing and approving lease assignments; and collecting, verifying, and posting lease rentals and production royalties.

Revenues received in FY 1996 are listed in Table 21; the relative percentage from each category is illustrated in Figure 22.

Table 21
Revenues Received from Minerals
in Fiscal Year 1996

Oil and gas	Rentals/bonuses/penalties	\$4,221,441
	Royalties	2,849,622
Aggregate materials	Seismic exploration	25,655
	Rentals	100
	Royalties	118,458
Coal	Rentals/bonuses	68,247
	Royalties	3,529,980
Other materials	Rentals/penalties	68,081
	Royalties	41,217
TOTAL		<u>\$10,922,801</u>

Figure 22. Total Mineral Revenue
Fiscal Year 1996

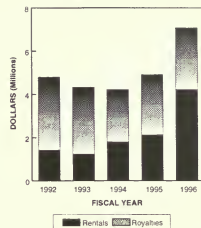


Oil and Gas Leasing

The mineral leasing program is responsible for the leasing and permitting of 2,422 oil and gas leases, 468 of which involve producing wells. Activities include collecting, verifying, and posting rental and royalty payments; reviewing and approving assignments; and maintaining all lease files.

In FY 1996, 1,030,278 barrels of oil were produced; 3,410,312 MCF of gas and 501,046 gallons of condensate were also produced. Revenues received over the last five fiscal years are shown in Figure 23.

Figure 23. Oil and Gas Revenue (excluding Seismic Exploration)



Other Mineral Leasing

The mineral leasing program also administers a wide variety of leases — including metalliferous and non-metalliferous leases, coal leases, gravel permits and leases, and land use licenses for non-mechanized prospecting — for all other mineral activity on state trust land. Royalties from coal over the last five years are shown in Figure 24. Royalties are also collected for minerals such as bentonite, clay, gold and associated minerals, peat, and shale.

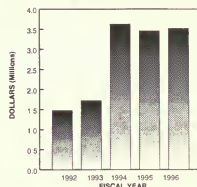
Royalty Auditing and Accounting

The royalty audit program continues to provide additional revenues as a result of programmatic audits. The program serves an important role in identifying royalty underreporting, rectifying the discrepancies, and raising the level of voluntary compliance.

In FY 1995, the department and Balcron Oil resolved the procedural issues involved in its district court case, and the Montana Supreme Court accepted the case on appeal. In FY 1996, the Montana Supreme Court handed down its decision in favor of the department, thereby providing guidance to current and future audits.

In FY 1996, \$235,819 was collected as a result of the program. In FY 1997, the department will conduct approximately 12 royalty compliance audits, most of which will involve multiple leases per audit. In addition, several audits are still pending.

Figure 24. Coal Royalties



Abandoned Well Reclamation

The Board of Oil and Gas Conservation (BOGC) has regulatory and bonding authority on oil and gas wells in Montana, including those wells on state trust lands. Where there is inadequate bonding or no responsible party, BOGC and the Minerals Management Bureau have previously been successful in obtaining funding from the reclamation and development grant program, administered by DNRC's Conservation and Resource Development Division, to reclaim some of these wells.

The 1995 Montana Legislature approved the department's request for a reclamation and development grant in the amount of \$183,000 to reclaim seven wells in Glacier County. This funding has been made available, and the wells will be plugged during FY 1997.

Reorganization of Montana's executive branch agencies has resulted in both BOGC and the Minerals Management Bureau being part of DNRC. BOGC has agreed to supervise the well plugging under this grant in coordination with its other well-plugging operations in the area, thus eliminating duplication of supervisory efforts. Future grant applications will be merged into BOGC grant activity.

Riverbed Leasing

Progress continues in claiming title to the beds and islands of navigable rivers. The state claims, pursuant to statute, those lands below the low-water mark, islands and their accretions formed in the riverbeds after statehood, and abandoned channels formed by rapid changes in a river's direction. Because two navigable rivers in Montana flow through areas with major oil and gas resources, the department has conducted over two dozen riverbed studies, determining state ownership of land. This lengthy process has enabled the state to take a progressive position in issues involving substantial royalty estates.

This same ownership review process is also becoming increasingly important in areas where surface development and/or use encounters beds, islands, and abandoned channels of navigable rivers.

In FY 1996, the state received \$152,652 in oil and gas revenues from leased riverbed tracts. Other mineral leasing activity provided \$5,173 from riverbed tracts.

McDonald Mine Proposal

In November 1994, the Seven-Up Pete Joint Venture submitted a proposed mine plan including state trust land. The mine plan proposal is for an open pit gold and silver mine near the town of Lincoln in Lewis and Clark County. A joint environmental impact statement involving multiple state and federal agencies is required to evaluate the mine proposal. During FY 1996, the department commenced a completeness review of the operating plan and baseline environmental information contained in the mine plan submittal. A draft environmental impact statement is expected by mid-1997.

Special Use Management

The Special Use Management Bureau administers all activities on lands classified as "other" and all secondary activities on lands classified as grazing, agriculture, or timber. Recreational use is considered a special use.

The bureau's responsibilities include processing land exchanges involving several thousand acres; analyzing and making recommendations regarding the sale of cabinistes and homesites; processing other sale applications; conducting field inspections of special use leases that are up for renewal; processing applications for rights-of-way; obtaining access through cost share; administering and maintaining records of the leasing

program for cabinsites and homesites; maintaining records and processing the billing for the Thompson River Grazing Cooperative; performing all appraisal activities associated with state trust lands including land exchanges, rights-of-way, and commercial leases; administering and processing requests for special uses of state trust land; and issuing appropriate leases or licenses.

Table 22
Special Use Revenues
in Fiscal Year 1996

Cabinsite and homesite leasing (792 agreements)	\$426,560
Easements (121 agreements)	269,642
Other special use leases and licenses	250,691
Recreational use (revenues to the trusts)	204,889
Commercial uses	123,410
TOTAL	\$1,275,192

Income from special uses has increased in each of the past three years (see Figure 25), and this trend is expected to accelerate. The sources of FY 1996 special use revenue are summarized in Table 22, and each is shown as a percentage of the total special use revenue in Figure 26.

Leasing/Licensing

Interest in special uses of state trust lands has greatly increased in recent years and is expected to continue into the future. The department issued 137 new leases and licenses in FY 1996. The special use program is actively involved in discussions regarding possible leasing of tracts of land with high potential for commercial development in Great Falls, Bozeman, and Kalispell. Establishment of new leases and licenses for a multitude of special uses holds great promise for increased revenue to the trusts.

Exchanges

The department and the State Land Board developed a land exchange policy for the purpose of guiding applicants and the department in the review and processing of exchange proposals. Land exchanges are analyzed using the following criteria:

- Equal or greater land value
- Similar navigable lake or stream values
- Equal or greater income to the school trust
- Equal or greater acreage
- Consolidation of state trust lands
- Potential for long-term appreciation
- Similar access to state or public lands

Figure 25. Special Use Revenue

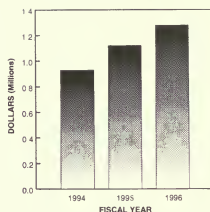
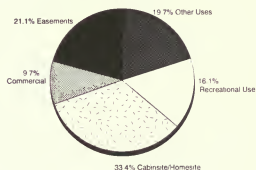


Figure 26. Special Use Revenue by Source
Fiscal Year 1996



Two land exchanges received State Land Board approval in FY 1996, and another has received preliminary approval. The bureau reviewed and denied several proposals for land exchanges that did not meet the criteria outlined in the policy. Other private and local government proposals are under review.

Blackfoot Clearwater Exchange

The department completed the Blackfoot Clearwater Exchange, a three-way exchange of land between Plum Creek Timber Company (as the successor in interest to Champion International); the Department of Fish, Wildlife and Parks (DFWP); and the Department of Natural Resources and Conservation. An agreement has been reached that improves access to and management of trust lands, provides DFWP better control and management of critical big game habitat east of the Clearwater River, and consolidates Plum Creek's holdings.

Turner Enterprises Exchange

Another exchange, this one with Turner Enterprises, involves state trust land within the Flying D Ranch near Bozeman, Montana. The state exchanged 6,522 acres on the Flying D Ranch for 11,630 acres on the Snowcrest Ranch in southwestern Montana and 1,058 acres at the Ulm Pishkun southwest of Great Falls. The state properties traded are mostly isolated tracts with no public access. The Turner fee land acquired by the state has an appraised value of \$4.4 million, while the state trust land disposed to Turner has an appraised value of \$4.2 million. The department found that the proposed land exchange met the exchange criteria and recommended that the exchange be approved. The State Land Board endorsed this recommendation and approved the exchange. The exchange was challenged in state district court by Butte area sportsmen regarding the significance of the recreational value of streams on the state trust land exchanged to Turner. The court ruled that the State Land Board had properly considered those values before approving the exchange.

Crow Tribe Exchange

On November 2, 1994, the Crow Boundary Settlement Act (CBSA) was signed into federal law. That law includes a provision that, as part of the settlement, the Crow Tribe is entitled to the value of 46,625 acres of land originally located within the Crow Reservation as a result of the Crow Allotment Act of 1920. The first priority for returning this value of land to the tribe is for the Secretary of the U.S. Department of the Interior to negotiate with the State of Montana for the exchange of those remaining state trust lands (approximately 34,000 acres) within the reservation for public domain lands outside the reservation and administered by the U.S. Bureau of Land Management (BLM). Most of the state trust lands involved are currently leased by non-tribal lessees who have expressed concern over the possible change in ownership of these lands.

The Secretary of the Interior provides financial assistance to the state through the BLM to participate in the exchanges authorized by the CBSA. It is anticipated that the exchanges will be accomplished in four phases and will take several years to complete.

The initial exchange proposal involves approximately 5,300 acres of state trust land on the Crow Reservation to be traded for BLM land of equal value in southern Beaverhead County. This proposal has received the first of three approvals required from the State Land Board, and the department will proceed with the second approval request when appraisals of the lands are completed. If the exchange is approved following appraisal, an environmental assessment will be completed prior to the State Land Board's final consideration of the exchange.

The second proposal will involve approximately 10,000 acres of state trust land in the northwestern quarter of the Crow Reservation to be exchanged for lands of equal value in the BLM Miles City District. Once DNRC and BLM agree on an exchange proposal, that proposal will begin the processing necessary for State Land Board approval.

Recreational Use

The recreational use program, established by House Bill 778 during the 1991 legislative session, is in its fifth year of development. Legally accessible state trust lands may be used for recreational activities by persons who hold state land recreational use licenses, provided the lands are not closed or restricted for such use by rule or by the department. The type of license required depends on the type of activity conducted. Licenses for "general" recreational use — which, with a few exceptions, includes most forms of noncommercial and nonconcentrated recreational activities — can be purchased from all DFWP license agents and DNRC area offices. "Special" recreational use licenses, which are available only from DNRC area offices, are required for concentrated recreational use conducted by groups or organizations, or for commercial activities such as outfitting.

From March 1, 1995, to February 28, 1996, which was the 1995 license year, 34,683 general recreational use licenses were sold. Additionally, 150 special recreational use licenses were issued for outfitting on state trust lands.

Rights-of-Way

The bureau is responsible for reviewing and processing applications for rights-of-way and easements across surface lands and navigable waterways administered by the state. Rights-of-way are most commonly sought for utility lines, pipelines, and roads. Applications for private driveways have been increasing steadily over the past few years. This increase has lead DNRC and the State Land Board to develop a policy establishing criteria for review of these requests. The critical components of this private driveway policy evaluate the impact on the value of state trust land and the ability of state trust land to produce revenue. The policy also establishes a 30-year term for private driveway easements.

The department is actively pursuing acquisition of access to isolated school trust lands to facilitate forest management in order to provide increased revenue to the trusts. Six reciprocal access agreements were reached in FY 1996, resulting in permanent easements.

WATER RESOURCES DIVISION

Providing the most benefit, through the best use, of the state's water resources for the people of Montana.

The Montana Constitution affirms that the state's water resources are owned by the State of Montana and are to be used by its people. DNRC has the statutory responsibility to ensure that the state's water resources are managed to meet the existing and future needs of its citizens.

The Water Resources Division (WRD) is comprised of four bureaus — the State Water Projects, Water Management, Water Operations, and Water Rights Bureaus — and eight regional offices. The division employs approximately 114 persons with staff members stationed in Helena's central office and in the regional offices, which are located in Billings, Bozeman, Glasgow, Havre, Helena, Kalispell, Lewistown, and Missoula.

State Water Projects

The State Water Projects Bureau administers the operation, management, and rehabilitation of the state-owned dams, canals, and hydropower projects listed in Table 23 on the next page. Some of these are owned by DNRC; others are owned by the Department of Fish, Wildlife and Parks (DFWP). Most of the projects are operated by local water users associations that market the water for irrigation and other purposes. Debt repayment is derived from repayment contracts with water users and from leases of lands associated with the projects (see Table 24). The bureau ensures that the projects are operated and maintained in a safe, efficient manner and that repayment contracts are properly administered.

Table 24
Leases Associated with
DNRC-Owned Water Projects

Lease Type	Number of Leases	Annual Revenues
Cabinsite	73	\$14,495
Grazing	03	\$ 1,703
Hay crop	03	\$ 2,936
Right-of-way	<u>01</u>	<u>\$ 300</u>
TOTAL	80	<u><u>\$19,434</u></u>

Table 23
State-Owned Storage Dams
Managed by the State Water Projects Bureau

Dam	Height (feet)	Storage Capacity (acre-feet)	Year Completed	County
Dams Owned by DNRC				
* Ackley Lake	51	5,975	1938	Judith Basin
* Bair	102	7,029	1939	Meagher
Broadwater-Missouri	56	3,000	1940	Broadwater
* Cataract Creek	80	1,478	1959	Madison
* Cooney	102	28,140	1937	Carbon
* Cottonwood	39	1,900	1953	Park
* Deadman's Basin Dam and Dike	60 & 18	76,900	1941	Wheatland
* East Fork Rock Creek (Flint Creek)	83	16,040	1938	Granite
* Fred Burr	50	516	1948	Ravalli
* Frenchman	44	3,752	1952	Phillips
* Glacier Lake North and South	57 & 20	4,200	1937	Carbon
* Martinsdale East and North	49 & 91	23,080	1939	Wheatland
* Middle Creek (Hyalite)	125	10,184	1951	Gallatin
* Nevada Creek	88	12,640	1938	Powell
* Nilan North and East	54 & 51	10,092	1951	Lewis and Clark
* North Fork Smith River	84	11,500	1936	Meagher
* Painted Rocks	143	32,362	1940	Ravalli
* Petrolia	59	8,360	1951	Petroleum
* Ruby	111	36,633	1939	Madison
* Theboe	28	1,286	1937	Teton
* Tongue River	91	69,430	1939	Big Horn
* Willow Creek	105	18,000	1938	Madison
Yellow Water Dam and Dike	37 & 11	3,840	1938	Petroleum
Dams Owned by DFWP				
Ashley Lake		Kleindschmidt		Rush Hall Pond
* Bearpaw		Knowlton Reservoir		Sleeping Buffalo
Fox Lake		Lake Inez (Clearwater)		South Sandstone
Freezeout Lake		Fish Barrier		Whitetail
* Gartside		Ninepipe		Young Creek Fish Barrier
Hungry Horse Fish Trap		Pike Marsh		
Johnson Reservoir		Rainy Lake Fish Barrier		
* High hazard dam - A "high hazard" dam is one whose failure would endanger lives. This classification is not a reflection on the actual condition of the dam.				

Project Rehabilitation

The project rehabilitation program identifies and corrects safety and operational deficiencies on state-owned projects. Projects rehabilitated or partially rehabilitated during FY 1996 include the Tongue River Dam, Petrolia Dam, and Bearpaw Lake Dam.

Tongue River Dam

The Tongue River project will result in the rehabilitation, repair, and enlargement of the Tongue River Dam; the fulfillment of the Northern Cheyenne Indian Reserved Water Rights Settlement Act; and the conservation, development, and enhancement of fish and wildlife resources and habitat in the Tongue River basin. The Record of Decision for the Final Environmental Impact Statement was signed on May 7, 1996. Rehabilitation work, which began in 1996 to remedy dam safety concerns, includes replacing the principal spillway, repairing the existing outlet gate assembly and tunnel, constructing a new auxiliary outlet works, and increasing the spillway capacity. Construction is scheduled to be completed in about three years at a cost of approximately \$64.4 million, which is cost-shared between the State of Montana and the federal government.

During FY 1996, efforts were concentrated on land acquisition duties at the Tongue River project. All purchases and easements required to reconstruct County Road 380, from Highway 314 to the dam, were completed. Aggregate mining sites, aggregate prices, and landowner consent forms were negotiated and resolved. Flood easement, fish and wildlife mitigation, and mine mitigation issues continue to be negotiated.

Petrolia Dam

The Petrolia Dam spillway was critically undersized and suffered from extensive foundation seepage and concrete deterioration. Construction efforts completed in FY 1996 included placement of the left abutment drain system, construction of the auxiliary spillway, and processing of the concrete aggregate. The project is to be completed in 1997 at a cost of about \$1.4 million. When the rehabilitation is completed, the project's ownership will be transferred to the water users association.

Bearpaw Lake Dam

Construction began in 1995 to replace deteriorating concrete in the lower spillway floors, walls, and flip bucket. During FY 1996, the lower two spillway floor slabs, walls, and the entire concrete flip bucket were removed and replaced. Rehabilitation also included replacing portions of the drain system, reconstructing the spillway bridge, adding splash guards to the dam crest, and relocating the road. Rehabilitation was completed in late 1995 at a cost of \$425,000. The first reservoir filling after rehabilitation occurred during the spring of 1996.

Project Management

The project management program administers the operation of the state-owned dams and oversees the repayment contracts with the water user associations. Additionally, the program protects water rights for the projects and oversees disposal of projects no longer appropriate for state ownership.

Project Disposition

The State of Montana originally became involved, many years ago, in various water conservation projects because there was a need for government to create employment opportunities and stabilize the agricultural economy. Governmental involvement in these projects no longer provides public benefits, and the projects are being transferred to private ownership. The listed activities were accomplished during FY 1996.

- Twenty additional projects were identified for transfer or sale.
- Preliminary file reviews, financial status determinations, and title searches were performed on seven of these projects.
- Two projects, the Fadness Canal system and the Camp Creek Reservoir, were transferred to private ownership.
- An appraisal was conducted on the Lake Theboe property.
- Negotiations occurred regarding the pending transfer of the Petrolia Reservoir project to the water users association following its rehabilitation (as mandated by legislation passed in 1995).

Water Measurement and Water Rights Activities

The State Water Projects Bureau is responsible for all activities required to protect, defend, and maintain water rights for all 23 state-owned water projects. In FY 1996, the bureau collected and recorded bimonthly reservoir storage data for 17 state-owned reservoir projects, and it operated and maintained 30 permanent stream- and canal-gaging stations associated with state projects. This data collection included tabulating and recording annual discharge summaries for all stations for FY 1996.

Administration of Project Lands and Leases

DNRC owns land surrounding state-owned reservoirs, supply canals, and water delivery canals. These lands are unique and are administered under a special set of statutes.

In FY 1996, DNRC assumed responsibility from the Department of Fish, Wildlife and Parks to administer cabinsite leases at the Painted Rocks and Deadman's Basin projects. The cabinsites at Deadman's Basin were appraised to compare the current leases with the fair market value of the cabinsites. New leases were prepared that would allow the program to be self-supporting. A second appraisal is currently being conducted on the Deadman's Basin sites in response to the cabinsite lessees' request to purchase property from the department. DNRC is currently working with the Department of Environ-

mental Quality (DEQ) and the cabinsite lessees to meet subdivision review requirements so that a sale can take place.

A six-year integrated noxious weed management plan is currently being prepared for DNRC lands, as directed by the Montana Legislature. Mapping of the sites was completed during FY 1996. A separate noxious weed management plan was prepared for the Tongue River project.

A grazing study was conducted of state-owned property adjacent to Cooney Reservoir in Carbon County, and a grazing management plan was designed to better utilize land and protect riparian areas. A new lease incorporating the grazing management plan and changing the fee structure was implemented.

Several requests were processed for road right-of-way easements for canal crossings by utility companies.

Hydropower

The hydropower program administers the development and operation of hydropower-generating facilities on state-owned water projects. To date, one hydropower facility, the Broadwater-Missouri power project near Toston, has been built. With a maximum capacity of 10 megawatts, the project began generating power in June 1989.

DNRC owns and operates the facility and contracts with Montana Power Company (MPC) to sell the energy. Revenue earned is used to pay for rehabilitating state-owned water projects. In an average year, the project generates enough energy to gross roughly \$2.5 million in earned income. The annual rate paid by MPC to purchase the electrical energy escalates each year of the 35-year contract.

Department staff operate and maintain this hydropower plant, which includes performing numerous inspections and maintenance/repair tasks. Annual maintenance and repair require the plant to go off-line in late summer. Department staff also respond to emergency situations involving plant shutdowns and mechanical/electrical problems.

During FY 1995 and FY 1996 (the summer of 1995), the department and its turbine generator contractor corrected major defects in machinery and systems. These defects were a result of initial project design and construction problems. The repair work required more than two months of downtime, during which the speed increaser, generator, cooling water system, and lube oil systems were rebuilt. The work was performed in accordance with rulings by an arbitration panel.

Statistics concerning the Broadwater-Missouri power project during FY 1996 are shown in Table 25.

Table 25
Broadwater-Missouri Power Project
in FY 1996

Operational availability	76 percent
Gross energy produced	39,345,684 kilowatt-hours
Gross revenue earned	\$2,260,175 ¹
Operating costs	\$2,354,180
Net income	(\$94,005)

1. Revenue was below average because of extensive shutdowns needed to replace the faulty speed increaser and complete other repairs.

Water Management

The Water Management Bureau provides technical assistance and staff support in (1) the development and implementation of statewide water resource plans and policies, and (2) the resolution of local watershed conflicts.

State Water Plan

The planning process involves diverse groups of Montana water interests in a collaborative effort. The groundwater section of the State Water Plan will be completed by December 1996.

Watershed Management

During FY 1996, a number of local watershed and user groups were provided educational, technical, and staff support in improving water management and resolving water resource issues. Groups were located in these watersheds:

- Beaverhead River
- Big Hole River
- Bitterroot River
- Flathead River
- Flint Creek
- Lower Missouri River
- Milk River
- Muddy Creek
- Musselshell River
- Ruby River
- Sun River
- Tenmile Creek
- Upper Clark Fork River

A Helena-based position was relocated to Glasgow to assist water users in the Milk River basin with ongoing water management issues.

Phase II (data collection) was completed of a three-year cooperative investigation of arsenic transport and mobility in surface water and groundwater of the upper Missouri River basin. Arsenic levels in the upper Madison and Missouri rivers are high and pose a significant problem in the upper Missouri. A \$179,000 grant, which was obtained in 1993, is funding a cooperative study endeavor among the U.S. Bureau of Reclamation, the U.S. Geological Survey (USGS), and Montana State University.

Development of Drinking Water Supplies

The program provided technical and planning assistance to the Ad-Hoc Coordinating Committee for the Rocky Boy's North Central Montana Regional Water Supply System. Groundwater quality and quantity data were compiled to evaluate potential sources of water. The committee obtained \$300,000 from Congress for a feasibility study. The Chippewa Cree Tribe of the Rocky Boy's Reservation and 30 rural and municipal water systems are involved in the project.

The program assisted the Fort Peck Water District in seeking congressional authorization and appropriation for its rural water supply system. Legislation authorizing the project has been passed by Congress.

Water Resource Education

The goal of the water resource education program is to provide citizens with the tools and knowledge to participate in solving watershed and water resource problems.

The program conducted two "Know Your Watershed" workshops: one in the Elk Creek watershed (Elk Creek is a tributary of the lower Clark Fork River), and the other in the Rock Creek watershed (Rock Creek is a tributary of the Clarks Fork Yellowstone River). Each year, the program holds a two-day water commissioner training workshop in different locations throughout the state. Last spring, the workshop was held in Helena.

Teachers and residents within the Flathead River basin were given a week-long workshop to learn about (1) agencies and user groups that manage and use water, and (2) the importance of water conservation and water quality protection in the basin. Teachers are encouraged to use this information in their classrooms.

A guide to Montana's water, entitled *Headwaters to a Continent*, was prepared and published. This water guide is designed to help adults and students learn and understand the management, use, and regulation of Montana's water.

Protection of Montana's Water

DNRC has the statutory responsibility to protect Montana's water resources in interstate and international water allocation and management proceedings and decisions. Major activities during FY 1996 are described below.

- Provided education and staff support to a Montana group of Missouri River water users who represent the state in discussions (sponsored by the Missouri River Basin Association) with water users from the other Missouri basin states
- Provided assistance in protecting Montana's interests in the North Fork Flathead River drainage, and drafted an agreement between Montana and British Columbia to create a formal process for discussing and resolving issues of mutual concern
- Began discussions to formalize an agreement between the United States and Canada on the Poplar River that (1) apportions the flows of the river and its tributaries between Montana and Saskatchewan (based on the International Joint Commission's recommended apportionment), (2) establishes water quality objectives, (3) defines a groundwater protection plan, and (4) creates a process for resolving disputes between Montana and Saskatchewan

Coordination of Water Resource Activities among Natural Resource Agencies

The program finalized a memorandum of understanding (MOU) for sustaining ecosystems, watersheds, and communities. This MOU establishes a framework of cooperation among 23 local, state, and federal natural resource agencies. The primary goal of the MOU is to provide coordinated service to the people of Montana.

Drought

The Montana Drought Response Plan was published and distributed throughout the state. The report defines different "trigger indices" that will initiate appropriate drought response actions.

Groundwater Management

Program staff reviewed all hydrologic reports required for groundwater provisional water use permits in the upper Clark Fork basin.

Sheridan County Conservation District was assisted in designing, financing, and implementing the Medicine Lake Groundwater Study.

DNRC performed aquifer tests, monitored groundwater, logged geophysical boreholes, and compiled well logs for the Flathead Valley Groundwater Study, in cooperation with the Montana Bureau of Mines and Geology's groundwater characterization program.

Two petitions for controlled groundwater areas (Hayes Creek near Missoula, and the Rocker area near Butte) were reviewed.

A plan was developed and a grant proposal prepared for remediation of the DNRC-owned Reliance Refinery site in Kalispell.

Program staff served on the technical review team for the Montana Bureau of Mines and Geology's flowing well mitigation in Petroleum County.

Water Operations

The Water Operations Bureau administers dam safety, floodplain, and water measurement programs and provides staff support for the Board of Water Well Contractors.

Dam Safety Program

Permitting of High Hazard Dams

All high hazard dams regulated by DNRC must have an operation permit. To obtain or renew an operation permit, the dam owner must review and update the dam's emergency action, operation, and maintenance procedures and have an inspection con-

ducted by a professional engineer. Often, conditions placed on an operation permit require that certain dam deficiencies be addressed. Failure to meet the conditions of an operation permit can result in a restriction on the reservoir level and/or a fine. The department issued or renewed 54 operation permits and performed 12 hazard classifications during the fiscal year.

Public Awareness/Education

This year's dam safety workshop was a "hands on" technical seminar on the proper installation and analysis of dam piezometers (instruments that measure changes in hydrostatic pressure). About 50 dam owners and engineers attended.

A newsletter was developed (1) to help keep dam owners, engineers, regulators, and emergency services personnel apprised of events and developments in the state, (2) to keep communication active, and (3) to provide a forum for technical discussion of dam safety issues. The first issue was published in February 1996. The newsletter, called *Montana Dam Safety Outlet*, will be published twice a year.

Extreme Precipitation Study

The basis for the state's inflow design standards for spillways is now the probable maximum flood (PMF) for the drainage area upstream. The dam safety program is continuing with its study of extreme precipitation events in an effort to change these standards from PMF-based to risk-based. The Montana District of USGS is conducting the study.

The first phase has been completed. This phase consisted of developing a method to determine total precipitation by conducting analyses of historical precipitation maxima. The results indicated that Montana contains three regions in which historical precipitation is statistically homogeneous. Grouping together the station maxima within each region allows estimates of precipitation depths for up to a 5,000-year return period.

The second phase is currently under way and will be completed later this year. This phase is also statistically-based and will result in likely distributions for various storm durations in a given region of the state.

Impacts to Dams from Flooding

Extensive flooding, bringing significant damages, occurred throughout Montana in February. Program staff telephoned many dam owners, asking them to examine their dams and make sure there were no problems with the reservoirs. One low hazard, earth-filled dam in Meagher County was overtopped, but did not fail because the ground was frozen. Water also overtopped Canyon Creek Dam west of Hamilton, eroding a 4-foot deep and 40-foot wide section of the top of the dam.

Eureka's holding pond failed catastrophically last July, sending 100 acre-feet of wastewater downstream. It was a fairly new dam; however, over time wave action had removed portions of the upstream clay liner, allowing piping to occur. The dam has since been repaired and is functioning under a much better operation and maintenance plan. Damage litigation is ongoing.

Board of Water Well Contractors

The Board of Water Well Contractors is responsible for licensing water well drillers, water well contractors, and monitoring well constructors. The board establishes water well construction standards and enforcement and training procedures. Composed of five members, the board consists of one technical advisor/hydrogeologist appointed by the Montana Bureau of Mines and Geology, two licensed Montana water well contractors appointed by the governor, one member appointed by the DNRC director, and one member appointed by the DEQ director. Each member serves a three-year term. The board is attached to the Department of Natural Resources and Conservation for administrative purposes.

Licensing

During FY 1996, 320 people were licensed in three categories: water well contractors, monitoring well constructors, and water well drillers. Fourteen of these were new licensees. Eleven former licensees did not renew their licenses.

Complaints and Investigations

Sixty-nine complaints were received, compared to 94 in FY 1995. Thirty-eight of the complaints were investigated for violations. Three faulty wells were repaired. Disciplinary action was brought against one driller and is pending against another. No suspensions or revocations are pending.

Public Awareness/Education

The Board of Water Well Contractors held 2 continuing education classes, approved 11 programs by suppliers and manufacturers for continuing education credit, and completed a videotape education program for DNRC's Water Resources Regional Offices.

A newsletter, *Well Developments*, is published and distributed to license holders.

Rules

The Board of Water Well Contractors also completed proposed rule changes and has given notice to the Secretary of State. Proposed revisions involve well sealing, flowing wells, abandonment, distances for well location, definitions, and clarifications. No fee changes were proposed.

Floodplain Management

The purpose of the floodplain management program is to reduce the loss of life and property from flooding throughout the state of Montana.

Flood Events

In FY 1996, Montana experienced flooding so severe that two Presidential disaster declarations were issued. Yet, the total damage was relatively minimal, compared to what could have occurred without proper floodplain management.

Program staff acted as the State Hazard Mitigation Officer (SHMO) for the Federal Emergency Management Agency (FEMA). The Hazard Mitigation Grant Program was initiated and administered by DNRC floodplain management program staff in 10 counties declared disaster areas in western Montana. The grant program is a federally funded program administered through FEMA by states for disaster areas. The purpose of the program is to provide for local government's increased expenses to enlarge or protect existing public facilities such as culverts and bridges to minimize future flood damages.

Projects

A number of floodplain restudies were initiated during the fiscal year by state and federal agencies. The restudy of the East and West Forks of the Bitterroot River in Ravalli County was completed, as was the floodplain management study of the Gallatin River at Big Sky.

Sanders County and the Town of Whitehall were enrolled into the National Floodplain Insurance Program (NFIP). Approximately 25 local floodplain management programs were evaluated for effectiveness and accuracy.

Public Awareness/Education

The program provides general technical and engineering assistance to local and state governments, private property owners, and engineering consulting firms. Approximately 120 written contacts and more than 2,000 telephone contacts were made in FY 1996. Guidelines were developed regarding the type of engineering assistance that DNRC will provide to property owners and/or developers.

A newsletter, *Highwater*, is published and distributed to local government floodplain officials and others.

Water Measurement Program

A report was completed (1) detailing the examination of the Big Hole River for designation as a chronically dewatered stream, and (2) requiring measuring devices on all diversions. After the report was published in August 1995, a basin water users group was formed, and the decision by the department to designate this stream as chronically dewatered was delayed for one year.

Other streams now being examined include the Jefferson River and Rock Creek near Red Lodge.

Water Rights

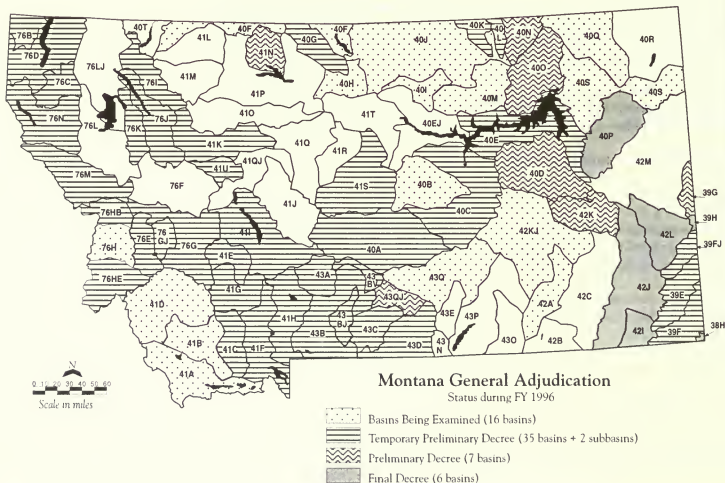
The Water Rights Bureau has three primary program responsibilities which respond to mandates in Article IX, Section 3 of the Montana Constitution. The responsibilities, which were initially enabled through the Water Use Act of 1973, are:

- To recognize and confirm existing (pre-1973) water rights by providing assistance to the Montana Water Court
- To administer, control, and regulate new (post-1973) uses of water in Montana
- To maintain and operate a centralized system of water right records

Adjudication

The first responsibility is commonly referred to as the adjudication program. The status of the statewide adjudication is shown in Figure 27.

Figure 27



During FY 1996, 3,172 claims were examined in DNRC's eight regional offices as part of the assistance provided to the Water Court. Furthermore, the program experienced the final 12 months of the late claim filing period, which was a legislative extension of the time DNRC was allowed to accept water right claims for pre-1973 water uses. A total of 5,063 late claims have been accepted since April 30, 1982. Almost 27 percent (1,358) of those were received in FY 1996. Bills to collect filing fees for 2,050 late claims were prepared and mailed to claimants, as required by the 1993 Montana Legislature.

While claim examination continues to be a significant activity, considerably more regional and central office staff resources are spent assisting the Montana Water Court with post-decree work than was done in previous years. Staff in regional offices are heavily involved in this post-decree assistance, which includes field investigations, pre-hearing conferences, hearings, public assistance, notifying the public about decrees, and notifying users about decree objections.

New Appropriations

Another responsibility of the Water Rights Bureau is the administration, control, and regulation of water rights in Montana. This responsibility is commonly referred to as the new appropriations program.

Since passage of the Water Use Act, the bureau has issued approximately 15,190 water right permits and changes. The number of permit applications processed during FY 1996 was lower than the number in the previous year. Some of the decline in permit activity may be related to the closing of several basins by the legislature. Also, several smaller sub-basins were closed to permit applications through water user petitions.

During FY 1996, a water user petition was processed regarding establishing the Hayes Creek controlled groundwater area, near Missoula. Processing included petition review, public notice, and public hearings. The controlled groundwater area became effective July 31, 1996.

As a result of another water user petition, administrative rules to close Sixmile Creek in Missoula County were adopted during December 1995.

In August 1995, the department implemented a more disciplined approach for applicants to prove the criteria before a permit can be issued. That new practice may have slowed the number of permit applications submitted to the department. Declining prices in the cattle market may have prompted a decline in the number of stock reservoirs and permits associated with stock use.

The number of hearings held by the department on water right issues has also declined over the past three years. Some of this decline results from basin closures that have occurred over the past few years. In addition, the number of frivolous objections to permit and change applications has declined, possibly due to the objection fee that was implemented during FY 1993. With the decline in the number of objections, the number of hearings subsequently decreases.

Water right change applications increased during FY 1996. With several basins closed to new appropriations of water, it seems reasonable to expect an increase in applications to change, move, or modify past water use.

More than 300 reminder letters were sent to water users regarding due dates for notices of completion and permit and change extensions.

With regard to water reservations, in response to petitions received from water users, the Sheridan County Conservation District's water reservation was subordinated to seven groundwater permits. This subordination means that the individual groundwater permits are considered to be senior to the conservation district's water reservation.

Bureau staff initiated the 10-year review of the Yellowstone basin water reservations to determine whether the objectives are being met by reservants. Staff also provided technical water right assistance during various compact negotiations.

Water Right Records

The third major responsibility of the Water Rights Bureau is to maintain and operate a centralized system of water right records. This responsibility is commonly referred to as the records program.

The records program has shown some change of activity during the past year. The routine updating of water right records with ownership transfers has declined slightly. This slight decline might be attributed to a somewhat slower real estate market in Montana.

Approximately 69,174 certificates for exempt groundwater uses have been issued by the Water Rights Bureau since July 1, 1973. The number of groundwater certificates filed on wells during FY 1996 is lower than it has been for several years. Again, this reduction is probably related to a less active real estate market. Less home construction and real estate development probably have a direct impact on the number of domestic wells that are developed.

Regional Offices

The primary function of the division's eight regional offices is to work directly with the public in implementing programs for which the division is responsible. The regional offices play a large role in the accomplishments reported concerning the division's programs. In addition, there are areas of special interest in the work of the regional offices over the past year which are highlighted here.

Public Assistance and Dispute Resolutions

During FY 1996, the regional offices continued to have significant levels of public interaction. For example, the Missoula Regional Office (with 8.5 full-time employees) had approximately 11,000 public contacts, and the Bozeman office (with 4.5 full-time employees) had approximately 5,600. The offices also respond to complaints of possible violations of the Water Use Act. During FY 1996, the Billings office responded to

approximately 45 water use complaints, and the Missoula office responded to approximately 29 complaints. Through intervention and mediation, regional office staff were able to resolve about 85 percent of the disputes without formal action by the division or the parties.

Geographic Information System

The division has been actively developing a geographic information system (GIS). As part of the Helena Regional Office, the system and the one employee who operates it provide support for all division programs and are involved with the division's direct public service activities. Over the past two years, several large projects and dozens of smaller projects have been completed. These projects include (1) preparing an environmental impact statement on repairing and enlarging the Tongue River Dam and Reservoir, and (2) mapping Ruby River valley streams and ditch systems for water distribution management. At the suggestion of local government and organizations, and in cooperation with the Montana Water Court, GIS is being developed into a tool for the statewide adjudication effort concerning the Bitterroot River in Ravalli County. The division, in cooperation with the Reserved Water Rights Compact Commission, this past year began a far-reaching project of building a GIS graphical database of all water rights in the Milk River basin. Another far-reaching project begun in FY 1996, in conjunction with the U.S. Bureau of Mines, is the creation of groundwater maps for Sheridan County for uses such as the development and administration of reserved water rights by conservation districts.

Decentralization

The division continues to decentralize authority to the regional level. Decision authority for new appropriations of water has been transferred to the local level. In the past year, the division began decentralization of authority for approving changes to existing water rights and permits.

Regional offices have taken leading roles in projects such as the rehabilitation of Petrolia Dam, Tongue River Dam, and Bearpaw Lake Dam and the inspections of USFS work at Painted Rocks Reservoir. In the past two years, local staff began representing the department at meetings of water users associations associated with state-owned water projects.

Regional offices have leadership roles in basin planning activities in such basins as the Milk River and the Musselshell River. Glasgow staff had the central division role in the successful efforts to secure \$5.8 million in federal and \$500,000 in state funding for the Fort Peck rural water system.

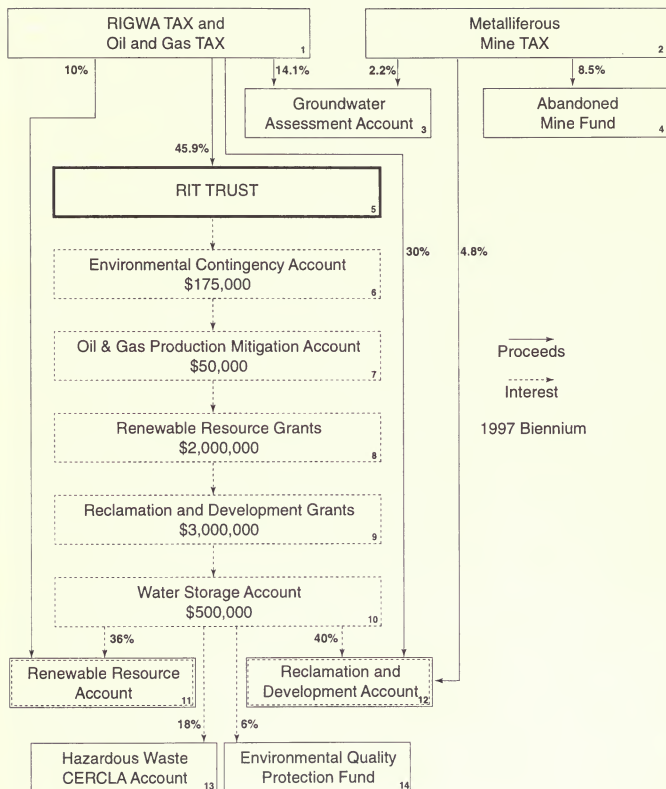
The division has involved regional office staff in new, and to date successful, ways in previously centralized efforts to develop water compacts. Havre staff played a key role in negotiations with the Chippewa Cree Tribe of the Rocky Boy's Reservation. The Billings staff, in cooperation with Crow Tribal staff, are examining irrigation claims on the Crow Reservation as part of the negotiations for a compact.

APPENDIX A

FUNDING INFORMATION

RESOURCE INDEMNITY TAX AND COAL SEVERANCE TAX

Allocation of RIT Proceeds and Interest



1. The **Resource Indemnity Groundwater Assessment Tax (RIGWA)** is a 0.5 percent tax of the gross value of the product of all mineral mining. The tax was originally created in 1973. Mineral production, including coal, metals (gold, silver, copper, lead), talc, vermiculite, limestone, and other "nonrenewable merchantable products extracted from the surface or subsurface of the state of Montana" (MCA 15-38-103), is taxed. Senate Bill No. 412 revised the tax structure for oil and natural gas production in Montana by combining a number of different taxes into one tax. This single tax is distributed to local and state agencies. One component was to remove the RIGWA tax on oil and natural gas and instead allocate 10.7 percent of the new combined tax in the same manner that the RIGWA tax is allocated (SB 412, Section 18). This change is intended to be "revenue neutral."
2. The **Metalliferous Mine Tax** is a tax on "annual gross value of product" of all metal mine production or precious or semiprecious gem or stone production (MCA 15-37-101 et seq.). The tax rate is 1.81 percent of the annual gross value over \$250,000 for concentrate shipped to a smelter, mill, or reduction work (MCA 15-37-103). For gold, silver, or any platinum-group metal that is dore, bullion, or matte and that is shipped to a refinery, the tax rate is 1.6 percent of the annual gross value over \$250,000 (MCA 15-37-103).
3. The **Groundwater Assessment Account** was created in 1991 (MCA 85-2-901 et seq.). The purpose of the account is to fund a statewide groundwater assessment program that will monitor quantity and quality of the state's groundwater. The program is staffed by the Bureau of Mines and Geology in Butte. An oversight committee reviews all expenditures, approves monitoring sites, prioritizes areas, coordinates information, and evaluates reports.
4. The **Abandoned Mine Fund** was created in 1995 (Senate Bill 382). The purpose of the fund is to "provide the funding to the department (of environmental quality) for the cleanup and reclamation of sites eligible for the pilot program" (SB 382, Section 19). SB 382 (Sections 14 through 20) established a "pilot remediation program" to operate in conjunction with the voluntary cleanup program created by this bill. These funds would be awarded to eligible reclamation projects and match applicant funds. The pilot program will "sunset" on June 20, 1997. The Department of Environmental Quality administers this program.
5. The **Resource Indemnity Tax Trust (RIT Trust)** was created in 1973. No funds that are deposited into the trust can be spent until the total deposits exceed \$100 million. This protection is provided in Article IX, Section 2 of the Montana Constitution. Trust fund proceeds are invested, and the interest earnings are distributed to several natural resource programs.
6. The **Environmental Contingency Account** was created in 1985 (MCA 75-1-101 et seq.). The governor has the authority to approve expenditures from this account to meet unanticipated public needs. Specifically, the statute limits projects to the following objectives: (a) to support renewable resource development projects in communities that face an emergency or imminent need for the services or to prevent the failure of a project; (b) to preserve vegeta-

tion, water, soil, fish, wildlife, or other renewable resources from an imminent physical threat or during an emergency, not including natural disasters or fire; (c) to respond to an emergency or imminent threat to persons, property, or the environment caused by mineral development; and (d) to fund the environmental quality protection fund. Each biennium \$175,000 of the RIT trust interest earnings is allocated to this account. The balance in this account cannot exceed \$750,000.

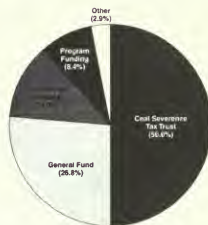
7. **The Oil and Gas Production Damage Mitigation Account** was created in 1989 (MCA 85-2-161). The Board of Oil and Gas Conservation may authorize payment for the cost of properly plugging a well and either reclaiming and/or restoring a drill site or other drilling or producing area damaged by oil and gas operations. The site must be abandoned, and the responsible person either cannot be identified or refuses to correct the problem. Each biennium \$50,000 of the RIT trust interest earnings is allocated to this account. The balance in this account cannot exceed \$200,000.
8. **Renewable Resource Grants** receive \$2 million in RIT trust interest earnings. The renewable resource grant and loan program was created in 1993 by combining the renewable resource development program and the water development program. The purpose of the grant program is to fund projects that conserve, develop, manage, and preserve water and other renewable resources. The program provides preference to projects that support the state water plan. Projects include construction and rehabilitation of existing water supply systems and wastewater systems, educational efforts, feasibility studies, development of water storage, enhancement of renewable resources including recreation, reduction and advancement of agricultural chemical use, and improvement of water use efficiency (MCA 85-1-602).
9. **The Reclamation and Development Grants Program** was established in 1987. The purposes of the program are: (a) to repair, reclaim, and mitigate environmental damage to public resources from nonrenewable resource extraction; and (b) to develop and ensure the quality of public resources for the benefit of all Montanans (MCA 90-2-1101). Projects have included plugging abandoned oil and gas wells, reclaiming mine sites, controlling nonpoint source pollution, researching new technologies for mine waste cleanup, conducting groundwater studies to determine the extent of contamination, and cleaning up pesticide contamination. A minimum of \$3 million of RIT trust interest earnings is allocated for these grants.
10. **The Water Storage Account** was established in 1991 (MCA 85-1-701 et seq.). The purpose of the account is to provide funding for projects that rehabilitate existing water storage facilities or develop new ones. Priority is given to high hazard, unsafe dams. Each biennium \$500,000 of RIT trust interest earnings is deposited into this account. Currently, the only project to receive water storage account funding is the rehabilitation of the state-owned dam on the Tongue River in eastern Montana.

11. The **Renewable Resource Grant and Loan Program** state special revenue account receives 36 percent of the remaining interest earnings from the RIT trust and 10 percent of the RIGWA tax proceeds. This special revenue account also receives revenue from state water projects, excess deposits in the renewable resource debt service account, and other administrative fees. The revenues are used to fund natural resource agency projects and administration including the Department of Natural Resources and Conservation, Governor's Office, Water Court, and State Library.
12. The **Reclamation and Development Grant Program** state special revenue account receives 40 percent of the remaining RIT trust interest earnings, 30 percent of the RIGWA tax proceeds, and 4.8 percent of the Metalliferous Mine Tax. The revenues are used to fund projects and administration of natural resource agencies, including the Department of Natural Resources and Conservation, State Library, Reserved Water Rights Compact Commission, Department of Environmental Quality, and Environmental Quality Council.
13. The **Hazardous Waste CERCLA Account** is administered by the Department of Environmental Quality. CERCLA stands for the federal Comprehensive Environmental Response, Compensation, and Liability Act. This account receives 18 percent of the remaining RIT trust interest earnings. The account was established in 1983 and is to be used to make payments on CERCLA bonds, implement the Montana Hazardous Waste Act, and provide assistance in remedial action under CERCLA.
14. The **Environmental Quality Protection Fund** was established in 1985 and is administered by the Department of Environmental Quality. This account receives 6 percent of the remaining RIT trust interest earnings. The purpose of this account is to provide funding for remedial actions taken by the department in response to a release of hazardous or deleterious substances.

COAL SEVERANCE TAX TRUST

Within 30 days of the end of each calendar quarter, coal severance taxes are paid to the state, 50 percent of which are deposited in the Coal Severance Tax Trust Fund (the Trust) by the Department of Revenue. Five accounts are established within the Trust: (1) the Coal Severance Tax Bond Fund, (2) the School Bond Contingency Loan Fund, (3) the Treasure State Endowment Fund, (4) the Coal Severance Tax Permanent Fund, and (5) the Coal Severance Tax Income Fund.

1. Coal tax revenues that flow into the trust are initially deposited in the Coal Severance Tax Bond Fund (Bond Fund) and made available for payment of debt service on Coal Severance Tax Bonds (see footnotes 7, 8, and 9). The Department of Natural Resources and Conservation (DNRC) informs the Department of Revenue, during the first quarter of each state fiscal year, of the amount necessary to meet all principal and interest payments on bonds payable from the Bond Fund for the next year (two semiannual payments). The Department of Revenue retains that amount in the Bond Fund.
2. The January 1992 Special Legislative Session passed an act creating the Coal Severance Tax School Bond Contingency Loan Fund (Contingency Loan Fund). A total of \$25 million of school bonds was authorized to be issued and secured by this fund. For as long as there are any outstanding school district bonds secured by the Contingency Loan Fund, an amount equal to the next 12 months of principal and interest payments due on any school bonds is retained in the Contingency Loan Fund. DNRC provides written notice to the Department of Revenue in January of each year of the amount needed to secure school district bonds.
3. The Treasure State Endowment Fund (Endowment Fund) was established when voters approved the ballot measure on June 2, 1992. During the first quarter of each state fiscal year, 50 percent of the amount in excess of what is retained in the Bond Fund and in the Contingency Loan Fund is deposited in the Endowment Fund. The Department of Commerce notifies the Department of Revenue when interest earnings are needed to fund local infrastructure projects. The Department of Revenue then transfers the interest earnings from the Endowment Fund to the Treasure State Endowment Special Revenue Account (Revenue Account). The Department of Commerce then approves the disbursement of funds to authorized local governments. Interest earnings not transferred to the Revenue Account for projects are retained in the Endowment Fund.
4. During the first month of each quarter of the state fiscal year, 50 percent of the amount in excess of what is retained in the Bond Fund and in the Contingency Loan Fund



	Tax Allocation	FY 96 (\$1,000)	FY 97 (\$1,000)
Coal Severance Tax Collections		\$44,330	\$41,833
Coal Severance Tax Trust Fund	50.00%	22,165	20,917
General Fund	26.79%	11,876	11,207
Long-Range Building Program	12.00%	5,320	5,020
Program Funding	8.36%	3,706	3,497
Other			
Parks Acquisition and Management Trust	1.27%	563	531
Renewable Resource Loan Debt Service	0.95%	421	397
Cultural and Aesthetic Trust	0.63%	279	264

is transferred to the **Coal Severance Tax Permanent Fund** (Permanent Fund). State law authorizes the Board of Investments to invest up to 25 percent of the Permanent Fund in the Montana economy.

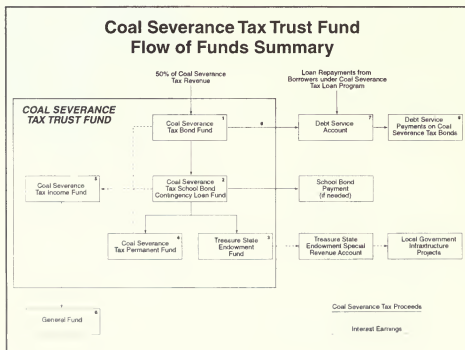
5. Investment income on the deposits in the Bond Fund, the Contingency Loan Fund, and the Permanent Fund are periodically transferred to the **Coal Severance Tax Income Fund**. The only exception to this is the Endowment Fund, where any interest earnings are either transferred to the Revenue Account or retained in the Endowment Fund.
6. The entire balance in the Income Fund is transferred to the **General Fund** on a monthly basis.
7. Under the Coal Severance Tax Loan Program, the state sells coal severance tax bonds and loans the proceeds to local governments for various infrastructure projects. The borrowers make semiannual or annual loan payments, which upon receipt are credited to a **Debt Service Account**. The terms of the loans vary, but generally involve an interest rate subsidy for the first five years of the loan followed by a direct pass-through of the interest rate on the state bonds for the remaining life of the loan. The loan program and debt service accounts are administered by DNRC.
8. Debt service payments on the bonds are due each June 1 and December 1. To the extent that funds on hand in the Debt Service Account are insufficient to pay principal and interest on the bonds when due, funds are transferred to the Debt Service Account from the Bond Fund.

On January 1 of each year, funds are transferred to the Debt Service Account from the Bond Fund to the extent necessary to cause the balance in the Debt

Service Account to equal one-twelfth of the next two ensuing semiannual debt service payments. DNRC provides written notice to the Department of Revenue if funds are needed to pay debt service or to make the required transfer on January 1. On January 1 of each year, DNRC also sweeps the Debt Service Account of funds in excess of one-twelfth of the next two ensuing semiannual debt service payments. The excess is returned to the Bond Fund in repayment of borrowed money, if necessary, or deposited in the Renewable Resource Grant and Loan Program Special Revenue Account.

9. On each June 1 and December 1, the state pays debt service on the bonds from amounts on hand in the Debt Service Account. Payments are made by DNRC.

Coal Severance Tax Trust Fund Flow of Funds Summary



ABBREVIATIONS

AUM	animal unit month
BIA	Bureau of Indian Affairs, U. S. Department of the Interior
BLM	Bureau of Land Management, U. S. Department of the Interior
BMP	best management practice
BOGCA	Board of Oil and Gas Conservation
CBSA	Crow Boundary Settlement Act
CD	conservation district
CDB	Conservation Districts Bureau
cfs	cubic feet per second
CFSA	Consolidated Farm Service Agency, U. S. Department of Agriculture
CSD	Centralized Services Division
DEQ	Montana Department of Environmental Quality
DFWP	Montana Department of Fish, Wildlife and Parks
DNRC	Montana Department of Natural Resources and Conservation
EPA	U. S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FEPP	Federal Excess Property Program
FERC	Federal Energy Regulatory Commission
FTE	full-time employee
FWS	Fish and Wildlife Service, U. S. Department of the Interior
FY	fiscal year
GIS	geographic information system
HRA	Hazard Reduction Agreement
MACD	Montana Association of Conservation Districts
MBPY	million barrels per year
MCA	Montana Code Annotated
MCF	million cubic feet
MEPA	Montana Environmental Policy Act
MOU	Memorandum of Understanding
MPC	Montana Power Company
MSCA	Montana Salinity Control Association
MSU	Montana State University
NACD	National Association of Conservation Districts
NFIP	National Floodplain Insurance Program
NPS	nonpoint source
NRCS	Natural Resource Conservation Service, U. S. Department of Agriculture
PMF	probable maximum flood
RC&D	Resource Conservation and Development Area
RDB	Resource Development Bureau
RDGP	Reclamation and Development Grants Program
RIT	Resource Indemnity Tax
RWRCC	Reserved Water Rights Compact Commission
SB	Senate Bill
SFLMP	State Forest Land Management Plan
SHMO	State Hazard Mitigation Officer
SMZ	Streamside Management Zone
SRF	State Wastewater Revolving Fund
UIC	underground injection control
UM	The University of Montana
USDA	U. S. Department of Agriculture
USFS	Forest Service, U. S. Department of Agriculture
USGS	Geological Survey, U. S. Department of the Interior
WRD	Water Resources Division



*"To help ensure Montana's land and water resources
provide benefits for present and future generations"*



Department of Natural Resources and Conservation

1625 Eleventh Avenue
Helena MT 59620-1601

470 copies of this document were published at an estimated cost of \$2.55 per copy. The total cost of \$1,200.80 includes \$1175 for printing and \$25.80 for distribution.

Persons with disabilities who need an alternative, accessible format of this document should contact DNRC at the address at the left. Phone 406 444-2074 / fax 406 444-2684.